The financial position of British households: evidence from the 2008 NMG Research survey

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The financial position of British households has been affected by a number of developments over the past year, including sharp fluctuations in food and energy bills, falling house prices and tighter credit conditions. Evidence from the latest survey of households, carried out for the Bank by NMG Research in late September and early October, shows how these and other changes have impacted on household budgets and spending decisions. The typical household reported that the income it had available after meeting household bills had fallen over the past year and that it had saved less than it had expected. Some households had been put off spending by tighter credit conditions, and more households were finding their debts to be a burden than in similar surveys carried out since the mid-1990s. But despite the greater pressures on household finances, only 3% of the households surveyed had so far fallen behind on bill or debt payments. Lower house prices had reduced the housing equity of homeowners.

Introduction

After a number of years of steady economic growth and low inflation, the past year has seen an abrupt change in the circumstances facing British households. For most of the year household real incomes have been squeezed by higher food and energy prices. That has been compounded by the effects of higher borrowing costs for a minority of mortgagors who reached the end of fixed-rate or discounted mortgage deals that had been taken out when mortgage interest rates were lower. Alongside these changes, house prices have fallen and credit has become more costly or difficult to obtain. The impact of these developments differs across households and the implication for overall household spending is likely to depend on whether those who are most adversely affected can shield their spending by running down their savings or borrowing more. Unlike aggregate data, disaggregated data can illuminate these differences between households and so contribute to an assessment of the impact of changes in household finances on consumer spending.

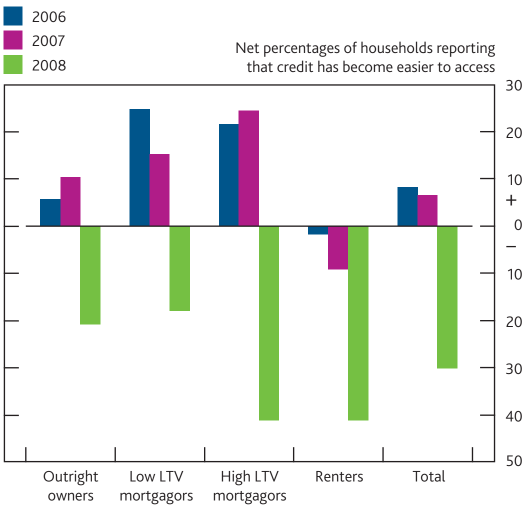
In late September and early October 2008 NMG Research carried out a survey of nearly 2,500 households on behalf of the Bank. The survey was carried out in the midst of the recent financial crisis with interviews taking place shortly after the failure of Lehman Brothers on 15 September, but before the UK bank support package was announced on 8 October.(1) Households were asked a range of questions about their finances. These included questions about how much they owed, whether their borrowing was secured or unsecured, whether they found it to be a burden and whether they had difficulty accessing further credit.(2) The survey is the sixth that the Bank has commissioned NMG Research to conduct on household finances.(3) Results from this year's survey have been used in the November 2008 *Inflation Report* (page 21) to assess the extent of household difficulties in servicing their debt and in the October 2008 *Financial Stability Report* to estimate the prospective scale of negative equity for a range of possible falls in house prices (pages 10–11). This article describes further results from the survey and provides more detail.(4)

(1) The 2007 survey was carried out shortly after the Bank announced on 14 September that it had provided a liquidity support facility to Northern Rock.
(2) Some more detailed information about the survey is included in the box on pages 391–92. The NMG Research survey is carefully designed and weighted to be representative of British households. But, as in any small sample of a population, care must be taken in interpreting small changes in results from year to year because they may not be a reliable guide to changes in the population.
(3) The results of each year's survey have been reported in the *Quarterly Bulletin*. See Waldron and Young (2007) for details of the 2007 survey.
(4) The raw survey data are available at www.bankofengland.co.uk/publications/quarterlybulletin/nmgsurvey2008.xls.

Access to credit

More households reported that credit had become harder rather than easier to access over the course of the year; a sharp change from the previous two surveys when more had found it easier to borrow (**Chart 1**).(1) Credit conditions had tightened by more for borrowers with least collateral such as mortgagors with loan to value (LTV) ratios of over 75% (high LTV mortgagors) and renters.(2)

Chart 1 Change in credit conditions(a)

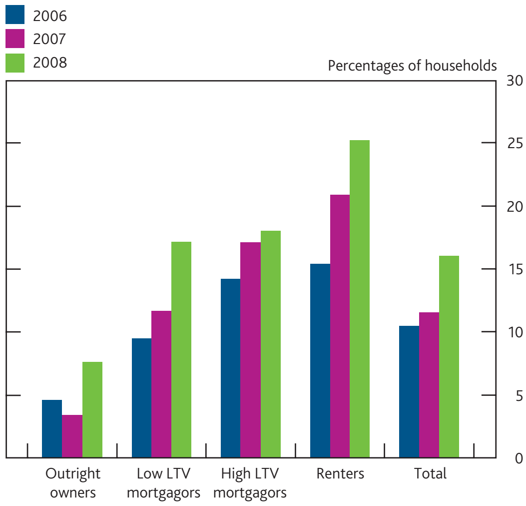


Sources: NMG Research survey and Bank calculations.

(a) Question: 'Have you found it easier or harder to borrow to finance spending than a year ago?'

The survey suggests that tighter credit conditions had restrained household spending. The proportion of respondents who said they had been put off spending because they were concerned that they might not be able to get further credit when they needed it had risen from 12% in 2007 to 16% in 2008. This proportion had risen among all groups and was highest among renters, where a quarter of respondents were in this position (**Chart 2**).

Chart 2 Proportion put off spending by concerns about credit availability(a)



Sources: NMG Research survey and Bank calculations.

(a) Question: 'Have you been put off spending because you are concerned that you will not be able to get further credit when you need it, say because you are close to your credit limit or think your loan application would be turned down?'

Developments in household indebtedness

After a number of years of rapid growth, the total amount of debt owed by UK households reached a little under £1.6 trillion by 2008 Q2, an average of around £60,000 per household.(3) That debt is not evenly spread across the population. About three quarters of it is secured on dwellings and so is owed by mortgagors, who comprise just 40% of households. The rest is borrowed using credit cards, overdrafts, personal loans, hire purchase and other types of unsecured credit. This section describes how debt is distributed across households, focusing on how developments over the past year have affected households' financial positions.

Unsecured debt

The proportion of households with some outstanding unsecured debt has increased and reached more than 50% in 2008. As a group, mortgagors accounted for around 60% of the total amount of unsecured debt reported in the survey. Compared to the 2007 survey, there was little overall change in the distribution of unsecured debt reported.

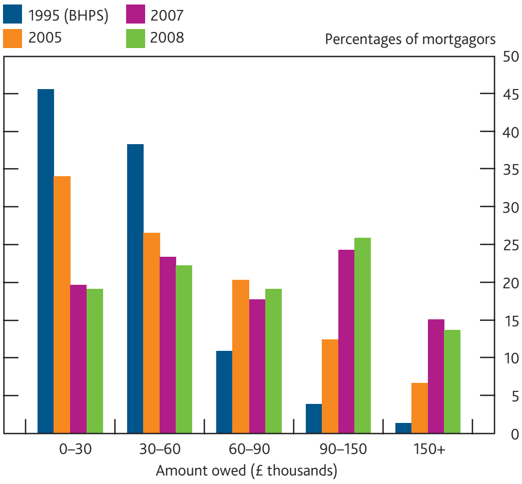
Secured debt and housing equity

There are wide differences in the amount of secured debt owed by different households. Around 40% of mortgagors reported that they owed more than £90,000 and almost 15% said they owed more than £150,000. This position is sharply different to that in the mid-1990s when the distribution was more concentrated and only 5% of mortgagors owed more than £90,000 (**Chart 3**).(4)

Almost 80% of mortgagors thought that their home had declined in value over the past year, while one third thought that their home had declined in value by more than 10%. Compared to the 2007 survey, the average house value reported by mortgagors was 10% lower.(5) Reflecting that, the amount of equity in mortgagors' homes had fallen and the size of their loans relative to the value of their houses had increased (**Chart 4**). Compared to the 2007 survey, more mortgagors had high LTV ratios (in excess of 75%). Nevertheless, previous rises in house prices had left most homeowners with a substantial buffer of housing equity. So, although loan to value ratios had increased on average in the

(1) This is consistent with evidence that lenders had tightened the supply of credit to households (see the Bank's *Credit Conditions Survey*, 2008 Q3).
(2) Similar to the 2007 survey, around 40% of the respondents were mortgagors, 28% were renters and 32% were outright owners.
(3) As published by the Office for National Statistics.
(4) The first NMG Research survey was carried out in 2003. Comparisons with the 1990s are made using the British Household Panel Survey (BHPS) which contains similar questions but is less timely. For more information on the BHPS please see www.iser.essex.ac.uk/ulsc/bhps/.
(5) House prices had fallen by 13% in the year to September 2008 according to the average of the Nationwide and Halifax house price indices.

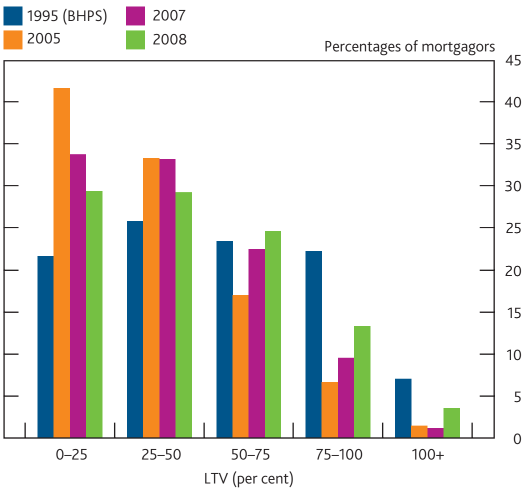
Chart 3 Distribution of secured debt among mortgagors[(a)]



Sources: British Household Panel Survey, NMG Research survey and Bank calculations.

(a) Mortgage debt from the BHPS captures mortgage debt owed by households on all properties they own. Mortgage debt from the NMG Research survey captures only mortgage debt owed on households' primary residences.

Chart 4 Distribution of loan to value ratios on mortgagors' outstanding secured debt[(a)]



Sources: British Household Panel Survey, NMG Research survey and Bank calculations.

(a) Mortgage debt from the BHPS captures mortgage debt owed by households on all properties they own. Mortgage debt from the NMG Research survey captures only mortgage debt owed on households' primary residences.

2008 survey, they remained below the levels recorded in 1995, after the trough of the previous housing downturn when estimates of negative equity peaked.

According to the NMG Research survey, around 4% of mortgages are estimated to have been in negative equity in late September 2008 (LTV greater than 100% in **Chart 4**). This is less than was the case in 1995 (see Cutler (1995)). But further falls in house prices would increase the incidence of negative equity. The prospective scale of negative equity under different assumptions about the prospects for future house prices can be estimated from the LTV distribution shown in **Chart 4** (see pages 10–11 of the October 2008 *Financial Stability Report*). Of course, the accuracy of these estimates depends on the reliability of the overall survey responses and it is possible that the survey understates the potential scale of the problem (see the box on pages 391–92). Ongoing internal work by Bank staff using alternative methods and sources has yielded broadly similar, but slightly higher, estimates of negative equity.

The reduction in housing equity over the past year may have affected some mortgagors' spending. In particular, mortgagors with high LTVs and relatively little collateral typically have to pay more for additional credit and credit conditions appear to have tightened most for this group (**Chart 1**). That may have discouraged some mortgagors from withdrawing and spending equity from their homes.[(1)] Consistent with that, there was a sharp reduction in the proportion of mortgagors in the 2008 survey who said that they had withdrawn equity. Just 6% of mortgagors said that they had taken out an additional secured loan in the year preceding the survey, compared to 10% in 2007 and 14% in 2006.[(2)] As in previous years, the main reason cited for taking an additional secured loan was to fund home improvements. But 39% of those taking out an additional loan said that they had done so to pay off other debts. Evidence on the effect of falling house prices on mortgagors' spending was not clear cut. Of the mortgagors identified as having LTV ratios of 75% or more, 50% said that their spending would be unaffected if house prices were to fall another 10%, while 3% said that they would increase their spending.

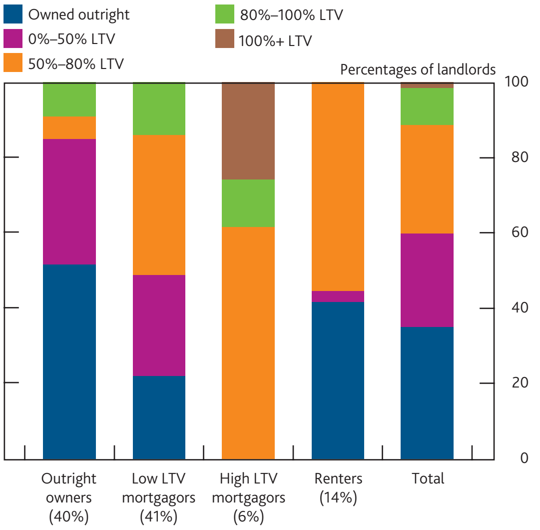
Buy-to-let mortgages

According to the Council of Mortgage Lenders, the proportion of the total stock of secured debt accounted for by buy-to-let mortgages grew from under 2% in 2000 to over 10% in 2008. This year's survey included for the first time some additional questions, aimed at finding out which households had buy-to-let mortgages and whether households with large mortgages secured on their primary residence also had large buy-to-let mortgages.

About 5% of respondents (around 100 households) reported owning at least one property for investment purposes which they let out. Most of these properties were financed by buy-to-let mortgages; around a third owned their investment properties outright. The majority of landlords had substantial housing equity either because they owned at least one property outright, or because they had a relatively low LTV on their property portfolio (**Chart 5**). About 40% of landlords owned their primary residence outright. These landlords were also the most likely to own their investment properties outright and of those with buy-to-let mortgages, the majority had LTV ratios of less than 50% on their buy-to-let portfolio.

(1) See Benito, Thompson, Waldron and Wood (2006) for a discussion of the link between house prices and spending.
(2) 6% was the lowest proportion taking out an additional secured loan since the NMG survey began and was as low as in the BHPS in the late 1990s.

Chart 5 Distribution of LTVs on investment properties by housing tenure of landlord(a)



Sources: NMG Research survey and Bank calculations.

(a) Tenure status of households (on the x-axis) refers to their main residence and does not include their buy-to-let portfolio. Proportion of landlords in each category shown in parentheses.

The most exposed landlords were the 6% of landlords with high LTV ratios on their main residence. All of these landlords had buy-to-let mortgages and 40% of them also had LTV ratios in excess of 80% on their buy-to-let portfolios.

Affordability

Although the distribution of household debt had not changed by much over the year, the average household had found it more difficult to service its existing debt. This was largely because higher household bills meant that after paying tax, national insurance, housing costs (rent, mortgage payments), loan payments and utility bills many households had experienced a decline in the amount of income available to spend in the shops (their 'available' incomes). Moreover, the real purchasing power of their 'available' income was further squeezed by higher prices of many essential items, including food.

More than half of the households surveyed reported that their monthly 'available' income had fallen in the year preceding the survey (**Table A**). The extent of this decline varied significantly across households and around 30% of households had experienced a decline in 'available' income of more than £100 per month. Around 40% of mortgagors were in this position. And consistent with the impact of higher bills, almost half of the respondents said that they had spent more over the year than they had expected to at the start of the year, compared to just under 8% who said that they had spent less.(1)

A possible reason for the reported decline in 'available' income among mortgagors was that some had experienced an increase in their regular mortgage repayments. Aggregate measures

Table A Changes in 'available' income over the past year by housing tenure(a)

	Outright owners	Low LTV mortgagors	High LTV mortgagors	Renters
Percentage of households	**32**	**33**	**7**	**28**
Characteristics				
Mean pre-tax monthly income (£s)	2,050	3,790	3,580	1,620
Mean 'available' monthly income (£s)	710	820	630	340
Distribution of changes in monthly 'available' income (percentage of households)				
Down by more than £100	23	39	39	24
Down by £51 to £100	21	19	19	21
Down by £1 to £50	13	9	9	16
Not changed	34	19	19	27
Up by £1 to £50	4	3	0	5
Up by £51 to £100	2	5	2	3
Up by more than £100	2	6	13	6
Mean change in 'available' income (£s)	-48	-64	-56	-45
Mean percentage change	-12	-12	-11	-14

Sources: NMG Research survey and Bank calculations.

(a) Questions: 'How much of your monthly income would you say your household has left after paying tax, national insurance, housing costs (eg rent, mortgage repayments, council tax), loan repayments (eg personal loans, credit cards) and bills (eg electricity)?'.
'And how much would you say your monthly leftover income has changed over the past year?'

suggest that the share of income mortgagors were devoting to service their debts was little changed in the year to October 2008. But some mortgagors faced more substantial changes as they came to the end of fixed or discounted-rate mortgage deals. The survey helps to quantify the significance of this by splitting mortgagors into three distinct groups (**Table B**). Those who had continuing variable-rate mortgage deals (column 1); those who had fixed or discounted-rate mortgage deals which expired in the year preceding the survey (column 2); and those who had continuing fixed or discounted-rate deals which did not expire in the year preceding the survey (column 3).

Around half of the mortgagors surveyed reported that they had been on a continuing variable-rate mortgage. Most of these households reported that their repayments were either unchanged or had increased only slightly compared to the previous year.

By contrast, the 17% of mortgagors who had been on a fixed or discounted-rate mortgage deal that had expired some time during the twelve months preceding the survey reported an increase in repayments. On average, this group reported that their repayments had increased by £68 a month, equivalent to around 10% of their previous monthly repayments and 2% of their monthly pre-tax income. But there was substantial variation around this, reflecting the timing of when individual

(1) When asked: 'Thinking about the last twelve months and taking all of your household's spending into account, did you end up spending more or less than you had expected?'. This is the first time this question has appeared in the survey and so it is not possible to know whether these responses are unusual.

Table B Characteristics of mortgagors and changes in repayments by types of mortgage

	Mortgagors on continuing variable-rate deals	Mortgagors who had a fixed or discounted-rate deal that expired during the preceding twelve months	Mortgagors on continuing fixed or discounted-rate deals
Percentage of mortgagors	**53**	**17**	**30**
Characteristics			
Mean pre-tax income (£s)	42,160	45,530	45,120
Mean outstanding mortgage balance (£s)	73,280	108,340	99,860
Mean mortgage loan to house value (per cent)	35	53	52
Mean age of respondent (years)	47	41	41
Distribution of actual or expected changes in monthly mortgage repayments (per cent)			
Down by more than £100	4	5	2
Down by £1 to £100	6	7	3
Not changed or not expected to change	37	20	25
Up by £1 to £50	37	19	13
Up by £51 to £100	10	24	31
Up by £101 to £200	4	17	21
Up by more than £200	1	8	5
Mean change in monthly repayments (£s)	18	68	69
Mean percentage increase	4	10	15

Sources: NMG Research survey and Bank calculations.

households took out their original mortgage deals and when they refinanced. In addition, households deemed riskier by lenders, perhaps because they had large loans relative to the value of their houses, may have experienced larger increases in repayments as lenders tightened the terms on which they were prepared to offer credit to higher-risk borrowers during 2008. As evidence that some households may have had difficulties, of the 160 mortgagors in the survey who refinanced, 15% either had some applications turned down before they got a new deal or moved on to their existing lenders' standard variable rate.

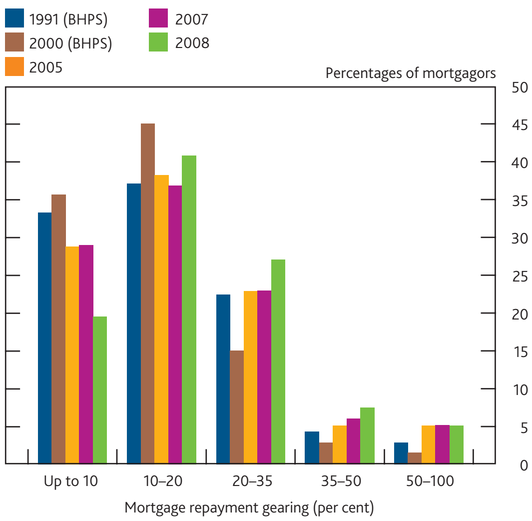
For those mortgagors who did experience an increase in their repayments, the effect of that on their ability to continue servicing their debts and on their consumer spending would have depended in part on whether or not the increase in repayments had been anticipated. In the 2007 NMG Research survey, most of the mortgagors with continuing fixed-rate deals reported that they were expecting their repayments to increase when their deals came to an end. In fact, the mean expected monthly increase was £65, very similar to the mean reported change in this year's survey. Although there would have been variation in households' expectations relative to what eventually happened, that does suggest that the increase in the repayments of fixed and discounted-rate mortgagors reported in this year's survey may have been at least in part anticipated. As a result, these households may have had more time to adjust their budgets to pay for any increase, mitigating the impact on consumer spending and the ability of these mortgagors to continue servicing their debts.

The remaining 30% of mortgagors were mainly on fixed-rate deals that had not yet expired and so had not experienced any change in their repayments in the year preceding the survey. On average, this group were expecting their payments to increase by £69 per month when their current deals expire, equivalent to 15% of their current monthly mortgage repayments. The amount by which these mortgagors' repayments will actually change depends on their current deals' expiry date (which was not identified in the survey) and the evolution of mortgage interest rates in the intervening period.

Overall (aggregating the three mortgagor groups in **Table B**), around two out of every three mortgagors surveyed reported that their repayments had not changed or had fallen compared to the previous year. And only 16% reported that their repayments had increased by more than £50 a month.

One measure of the overall affordability of households' mortgages is the share of their income that is devoted to servicing those mortgages. The distribution has shifted a little to the right in recent years and more mortgagors devoted a relatively large share of their incomes to meeting mortgage repayments in 2008 than in previous surveys, including the 1991 wave of the BHPS, at which time nominal interest rates were over 10% (**Chart 6**). That reflects rapid growth in secured debt over that period, as rising house prices meant that first-time buyers and those trading up the housing ladder had to take on more debt to fund their house purchases than had been necessary in the past (**Chart 3**).

Chart 6 Mortgage repayment gearing(a)(b)(c)



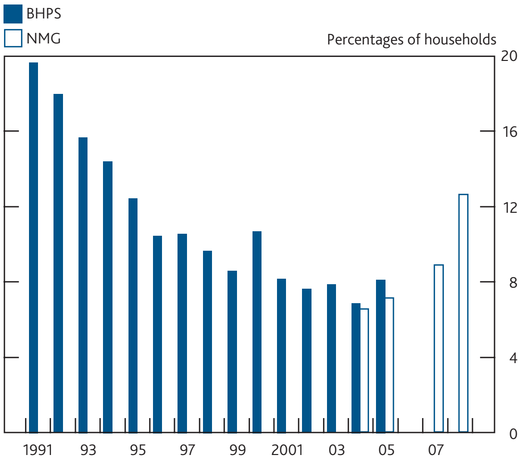
Sources: British Household Panel Survey, NMG Research survey and Bank calculations.

(a) Mortgage repayment gearing is calculated as total mortgage payments (including principal repayments)/gross income.
(b) Calculation excludes those whose gearing exceeds 100%.
(c) Reported repayments may not account for endowment mortgage premia.

Repayment difficulties and how households respond to them

The NMG Research survey shows an increase in the number of households experiencing difficulty in keeping up with payments on their debts and other commitments. **Chart 7** plots the proportion of households who said that they were having difficulty keeping up with their housing payments (ie rental payments for renters and mortgage payments for mortgagors). This increased over the year for all types of households and has increased steadily since the trough recorded in 2004. But it remains well below the peak levels recorded in the early 1990s.(1)

Chart 7 Housing payment problems(a)(b)



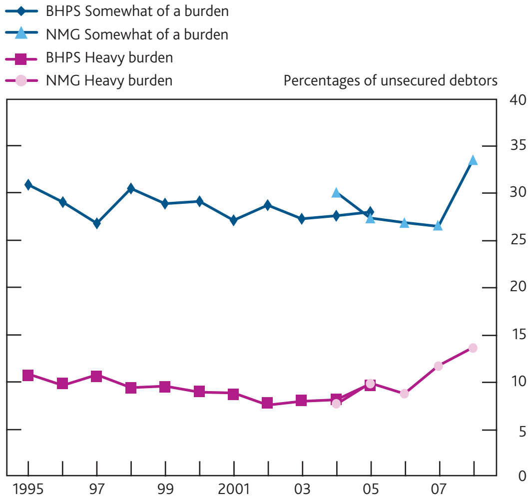
Sources: British Household Panel Survey, NMG Research survey and Bank calculations.

(a) Question: 'Many people these days are finding it difficult to keep up with their housing payments. In the past twelve months would you say you have had any difficulties paying for your accommodation?'
(b) In the 2006 NMG Research survey, renters and outright owners were not asked this question, so data for 2006 have been excluded from the chart because they are not comparable.

Chart 8 plots the proportion of households with unsecured debt who said that it is somewhat of a burden and the proportion that said it is a heavy burden to them. This is at its highest level since the question was first asked in the BHPS in 1995.

Although an increasing proportion of households reported experiencing some degree of financial difficulty, the number of households actually falling behind on their repayments was relatively small. The majority of households reported that they could keep up with bills and credit commitments without much difficulty (**Table C**). Around a third of households said that they struggled from time to time. Only around 3% of households admitted to falling behind with some bills or credit commitments. This is broadly consistent with other evidence such as that on mortgage arrears where about 1.5% of mortgages are in arrears of over three months.(2) Renters and mortgagors with high LTV ratios were more likely to be in this position than outright owners or low LTV mortgagors, with around 8% of renters and 4% of high LTV mortgagors reporting that they had fallen behind on payments.

Chart 8 Burden of unsecured debt(a)



Sources: British Household Panel Survey, NMG Research survey and Bank calculations.

(a) Question: 'To what extent is the repayment of these loans and the interest a financial burden on your household?'

Table C Keeping up with bills and credit commitments(a)

	Outright owners	Low LTV mortgagors	High LTV mortgagors	Renters	Total
Percentage that mentioned:					
Keeping up without much difficulty	71	56	49	46	58
Keeping up, but struggle from time to time	22	32	37	33	29
Keeping up, but a constant struggle	6	10	10	14	10
Have fallen behind on some or many payments	0	2	4	8	3

Sources: NMG Research survey and Bank calculations.

(a) Question: 'Which one of these statements best describes how well your household is keeping up with your bills and/or credit commitments at the moment?'

Table D shows that the main reason that some households had been experiencing difficulty in keeping up with their bills and credit commitments was that household bills had been higher than expected. Other reasons frequently cited by both renters and mortgagors were 'lack of cash flow that has been or will be resolved in the future' and 'overspending'. There was relatively little difference in the responses given by different types of households.(3)

Households who said that they had problems meeting their commitments were also asked what action they would consider taking to resolve them. As in previous surveys, the most frequently cited response was to cut back on spending. **Table E** shows that over half of all those experiencing some financial difficulty would cut back on spending to resolve it. That dominated all other suggested responses with only a

(1) The box on page 21 of the November 2008 *Inflation Report* discusses potential explanations for the apparent discrepancy between measures of affordability, like repayment gearing, and measures of distress.
(2) Source: Council of Mortgage Lenders.
(3) Note that this table is not directly comparable with that shown last year as that focused on difficulties with credit commitments only.

Table D Reasons for difficulty in keeping up with bills and credit commitments

Percentage that mentioned:[(a)(b)]	
Higher-than-expected household bills	35
Lack of cash that has been or will be resolved in future	28
Overspending	13
Unemployment	9
Higher-than-expected interest rates	8
Loss of income through reduction or cessation of overtime	7
Illness	4
Divorce or separation	3
Redundancy	2
Credit card and other loan offers were too tempting	2
Children's school or university fees	2
You or your partner leaving work to have a child	1
Debt legacy from being a student	1
Other	7
Don't know	5

Sources: NMG Research survey and Bank calculations.

(a) Ordered by frequency of response, rather than by the order in which households were shown alternative responses.
(b) Households were permitted to make multiple responses, so figures do not add up to 100.

Table E Action to resolve difficulty in keeping up with bills and credit commitments

Percentage that mentioned:[(a)]	
Cut back on spending	54
Sell your house	3
Take out another loan	3
Take out another mortgage on your house	1
Declare yourself insolvent (ie bankruptcy or IVA)	1
Other/none of these	32
Don't know	6

Sources: NMG Research survey and Bank calculations.

(a) Ordered by frequency of response, rather than by the order in which households were shown alternative responses.

small proportion saying they would borrow more, remortgage or sell their house or declare themselves insolvent (either by bankruptcy or an Individual Voluntary Arrangement (IVA)).[(1)] A third of respondents said they would not take any of the suggested actions with many of those saying that they would try to get a first or second job to meet debt repayments.

Summary and conclusions

The latest NMG Research survey highlighted the financial pressures that British households have faced over the past year or more. One of the key pressures was the widespread squeeze on the remaining income households had available after paying for higher household bills and, for a minority of mortgagors, higher mortgage repayments. Most households felt that their 'available' income had gone down. Consistent with that, and aggregate data on household saving, more households reported that they had saved less rather than more over the course of the year than they had expected to. And an unexpected increase in household bills was the most frequently cited factor in causing households difficulty in keeping up with their bills and debt repayments. These pressures were compounded by the effects that higher prices for food and other essential items had on the real purchasing power of 'available' income.

There was little evidence of households having increased their borrowing to help cope with these pressures. That may in part have reflected the impact of tighter credit conditions. Many households thought that credit had become harder to access over the course of the year. And almost one in six said that they had been put off spending because they were concerned they would not be able to get further credit when they needed it. So the survey was consistent with tighter credit conditions and higher household bills being key factors behind the slowdown in consumer spending over the past year.

Falling house prices had reduced the amount of equity homeowners had in their homes. There was some evidence that had affected household spending, with fewer households reporting that they had taken out an additional secured loan to fund spending on household goods or home improvements than in previous years.

There was evidence that more households were finding their debts to be a burden to them than was the case in previous NMG surveys. But despite that, only 3% of the households surveyed reported having fallen behind on bills or debt payments. Those that did report having fallen behind were mainly mortgagors with high LTV ratios or renters. As in previous surveys, very few households saw bankruptcy as a solution to their problems, with most households saying that they would try to resolve their debt problems by cutting back on household spending.

(1) An IVA is an agreement whereby the borrower agrees a repayment plan with the lender as an alternative to bankruptcy.

Survey method

The survey was undertaken by adding 34 questions to the monthly omnibus survey, MarketMinder, carried out by NMG Research. Interviews were conducted in the respondents' homes using Computer Assisted Personal Interviewing (CAPI) in two separate waves. The first wave of 505 households was carried out between 19 September and 25 September 2008. The second wave of 1,906 households was carried out between 26 September and 2 October 2008. Only mortgagors were interviewed in the first wave. This wave was carried out to increase the reliability of analysis of loan to value ratios, particularly at the extreme of the distribution. The results from each wave were weighted to help correct for any bias in the sample using nationally defined profiles for age, social grade, region and working status. In addition, the combined sample of the two waves was weighted so that the proportion of mortgagors matched the proportion found in the second wave of 40%.

A limitation of all surveys about sensitive issues such as household finances is that some people are reluctant to discuss them in face-to-face interviews. Because of embarrassment, those who face the most financial stress might be more likely than others to refuse to answer certain questions or to understate their difficulties. As in previous years, the survey was designed to reduce these possibilities. In order to encourage respondents to divulge sensitive information, they were told that the survey was being carried out on behalf of the Bank of England and would be useful in assessing how spending might be affected by its interest rate decisions and in judging the risks to financial stability. They were assured that their replies would be treated in the strictest confidence, would not be passed to any third party at any stage in the future and would not under any circumstances be used for sales or marketing purposes. Also, to avoid embarrassment in revealing sensitive information to the interviewer, replies to questions were coded on show cards and recorded on a computer in such a way that the interviewer would not know the content of respondents' answers.

Response rates were similar to those obtained in previous years. Only those respondents who were the chief income earner or main shopper were asked for their income. On a weighted basis, this meant that 10% of respondents were not asked about their income. A further 32% of households refused to provide (11%) or did not know (21%) their household income. Just over 30% of respondents refused to say or did not know how much unsecured debt they owed. A similar percentage of households did not provide information about their secured debts. 9% of those asked did not know how much they owed and 19% refused to say how much.

Several possible approaches can be used to adjust for missing values arising from non-response to particular survey questions. Effectively, these all involve imputing a value for missing observations. All calculations reported in this article have been carried out using all available responses, implicitly assuming that non-response is distributed in the same way as recorded responses: that is, regardless of the characteristics of non-respondents. But in practice non-response for individual survey questions is not distributed uniformly across groups in the survey population. For example, older people were more likely to refuse to say what their household income was. Nevertheless, internal analysis shows that the overall conclusions from the survey were not very sensitive to which of the available imputation methods is used.

But the extent to which the sample of households surveyed can be considered representative of the population as a whole also depends on other factors. For example, collectively, survey respondents may systematically misreport information about their finances. Redwood and Tudela (2004) perform an aggregation exercise using the British Household Panel Survey and conclude that mortgage debt is underrecorded, the value of households' housing assets is overrecorded and unsecured debt is substantially underrecorded. Internal analysis shows that those broad conclusions also apply to the NMG Research survey. But there was less evidence that these biases vary over time. So, changes in the distribution of balance sheets between different survey years may be representative of changes in the population as a whole.

Finally, in an attempt to encourage as many households as possible to provide information about their finances, the respondents were offered a list of categories from which they could select their responses. For example, mortgagors were asked roughly how much they had left to pay on their mortgage and other secured debts. Those who were prepared or able to provide a response were offered a list of 25 buckets from which to choose: 'Less than £10,000', '£10,000–£19,999', '£20,000–£29,999', … , '£1,000,000 or more'. And similar response lists were associated with other questions (eg household income, house values etc). In each case, the buckets were chosen so that there were smaller increments in parts of the distribution that tend to draw more of the responses. But regardless of how the buckets were chosen, it is not possible to determine the distribution of responses within each bucket in the absence of additional information. For example, a mortgagor who reported having an outstanding mortgage balance of '£10,000–£19,999' could owe £10,000, £19,999 or anything between the two. There are two alternative assumptions that can be made. First, assume that each mortgagor had a mortgage debt equal to the mid-point of the bucket chosen. In the example above that would be equivalent to assuming that the mortgagor had an outstanding mortgage balance of £15,000. This was the approach taken in all previous *Quarterly Bulletin* articles discussing NMG Research surveys (eg Waldron and Young (2007)). Second, assume that all of the responses within each bucket are equally likely. In the above example, that is equivalent to assuming that there is a continuum of households, which have the same overall weight as the identified mortgagor, with mortgage debts of between £10,000 and £19,999. This was the approach taken in this article. Theoretically, this approach is a more accurate representation of the raw information provided by the respondents. Practically, the conclusions of the article are unaffected by whichever method is used. In particular, the two approaches yield an identical mean. For example, both approaches would imply a mean mortgage debt among responding mortgagors of £86,593. But the two approaches yield slightly different results in other parts of the distribution with the second approach resulting in smoother distributions, particularly near the tails.

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