Financial pressures in the UK household sector: evidence from the British Household Panel Survey

By Pru Cox, John Whitley and Peter Brierley of the Bank's Domestic Finance Division.

Household indebtedness has risen rapidly in relation to incomes in recent years. But aggregate data cannot indicate which types of households—by age, income or wealth—have accumulated the most debts. This article uses information from the latest British Household Panel Survey(1) (for the year 2000) to provide some evidence on that issue. The survey suggests that debt-to-income ratios vary widely across households. The youngest and lowest-income households increased their debt-to-income ratios by most—and from the highest levels—between 1995 and 2000. But the households with the highest absolute levels of debts tended also to have the highest incomes and net wealth in both years. A large proportion of this wealth was held in housing assets. Such households did not, however, hold substantially more liquid assets than less indebted households. Although households were relatively sanguine about their higher levels of debt, that confidence could be eroded if circumstances deteriorated. Overall, changes in the distribution of household debt in recent years suggest that the household sector may be somewhat more vulnerable to an adverse shock than the aggregate measures indicate.

Introduction

This article summarises information contained in the latest British Household Panel Survey (BHPS), pertaining to the distribution of financial pressure across households in Great Britain.(2) The latest survey, published in April 2002, is the first for five years to contain extensive information, not available elsewhere, on the distribution of household sector assets and liabilities.

There are clearly many different ways in which the evidence from the BHPS can be presented.(3) The article highlights some stylised facts relating to three standard indicators of financial health used in the Bank: debt-income ratios; income gearing measures; and capital gearing ratios derived from the relationship between the liabilities and assets sides of the household sector balance sheet.

For each indicator, the article considers (a) how financial stress is distributed across households; (b) how this distribution has changed between 1995 and 2000, the two years for which fuller information is available; and (c) the types of household—by age, income and wealth—in the most indebted financial positions. Aggregate data cannot provide information on any of these factors. Furthermore, measures of central tendency (mean, median, mode) taken across heterogeneous groups of households cannot capture the position of households in the tails of the distribution. In assessing financial stress, we are most concerned about households whose indebtedness has reached levels likely to prove a heavy burden.

The article seeks to demonstrate that the disaggregated evidence from the BHPS provides additional and relevant information that can usefully supplement and augment the aggregate national accounts indicators of the household sector's financial position. Life-cycle considerations and casual observation suggest that the burden of debt varies substantially across households. At one end of the spectrum, younger households, for example, may borrow substantially against future income to purchase and furnish a house. At the other end, older households may have largely paid off their debts. Differences of this type mean that aggregate measures of

(1) The British Household Panel Survey data used in the paper were originally collected by the ESRC Research Centre on Micro-social Change and were made available through The Data Archive.
(2) Some results have already been reported in the Bank's *Financial Stability Review* for June 2002, page 83.
(3) See, for example, Banks, J, Smith, Z and Wakefield, M (2002), *The distribution of financial wealth in the UK: evidence from 2000 BHPS data*, Institute for Fiscal Studies.

financial pressure can only serve as proxies for the extent to which individual households on average experience difficulty in repaying their debts.

The information summarised in this article is relevant to some of the recent debates about the financial health of households in the United Kingdom and the United States. The Monetary Policy Committee noted the importance of examining financial stress at an individual household level in the minutes of its June meeting. The Committee was particularly interested in whether it was the same or different households who had been accumulating assets on the one hand and building up debt on the other in recent years, and whether debt was becoming more concentrated among particular groups of households.(1) In the United States, Federal Reserve Board Chairman Alan Greenspan has also illustrated the importance of disaggregated data in his testimony to the Joint Economic Committee in April this year. He emphasised the uneven distribution of debt and assets across households and noted that 'increased debt burdens appear disproportionately attributable to higher-income households' who 'should not experience much strain in meeting their debt service obligations'.(2)

In addition to quantitative information, the BHPS also provides qualitative information on the extent to which debt is considered a burden by individual households. This qualitative information may be used to supplement the quantitative indicators, although it is, of course, a purely subjective measure of financial pressure. The article includes a brief consideration of these qualitative indicators.

Indicators of financial pressure

The BHPS is an annual survey of households in Britain, which has been conducted since 1991. The most recent survey, released in April 2002, relates to the year 2000. Each survey is based on a nationally representative sample of adult members in around 5,500 households originally sampled in 1991. These sample members have been re-surveyed each year. If individuals leave their original households to join or form new households, the members of these households are added to the survey. New members of the original households, including children who reach the age of 16, are also interviewed.

The survey provides information on both quantitative and qualitative measures of factors affecting households' financial positions. *Quantitative measures* available in each survey include mortgage income gearing and the monthly saving ratio, both relevant to the ability of households to service their debts. Data on households' *stocks of debt and assets* are also available, but only for the years 1995 and 2000. These data can be used to calculate debt-income and capital gearing ratios for those years, providing an indication of the level of and changes in(3) the overall burden of indebtedness in relation to households' resources. *Qualitative measures* refer to the extent to which a household reports difficulties in meeting repayments, whether on its mortgage debt or on other debts. These indicators are subjective, because different households have different notions of what constitutes a payment problem. Table A summarises the indicators that can be derived from the BHPS.

In drawing conclusions from the BHPS, the extent to which the sample is representative of the household sector in aggregate is clearly crucial. The most comprehensive assessment of personal sector financial wealth in the United Kingdom is available from the Inland Revenue, based on information from estates. Comparisons suggest a close correspondence between BHPS and Inland Revenue data for all but the wealthiest 1% of households in the United Kingdom, which appear (perhaps not surprisingly) to be underrepresented in the BHPS sample.(4) Given that the assets of the very wealthy may contribute substantially to aggregate totals, direct comparisons between aggregate household sector statistics and BHPS figures are deliberately avoided in this article.

Debt-income ratios

We consider first the distribution of debt in relation to income over the sample of households, and also how debt-income ratios vary by levels of household income and the age of the household head.

(1) 'The aggregate expansion of both sides of the household sector balance sheet concealed a risk at a disaggregated level: to the extent that some households were accumulating liabilities while others were increasing their assets, there was a risk that indebted households might have to adjust their balance sheets and consequently reduce their consumption sharply in the event of an adverse shock.' Minutes of the MPC meeting, 5–6 June 2002, page 4.
(2) Testimony of Chairman Alan Greenspan, 'Monetary policy and economic outlook', before the Joint Economic Committee, US Congress, 17 April 2002.
(3) Comparisons between 1995 and 2000 need to be treated with caution. For example, the list of unsecured debts in 2000 included student loans and overdrafts, which were not separately identified in 1995 (although it is unclear whether respondents might have included them in another category in 1995).
(4) BHPS data for 1995 indicate that the wealthiest 1% of households owned 6% of total wealth. According to Inland Revenue estimates for 1995 the wealthiest 1% of households owned 19% of total wealth.

Table A
Indicators of financial pressure in the BHPS

Type	Indicator	BHPS questions and responses	Calculation of indicator
Quantitative-flow measures	Income	Respondents are asked how much their household income was in the month before interview. This measure includes income from employment, self-employment, investments, pensions and benefits, less direct taxes.	Income can be adjusted to allow for the effects of household size and composition.
	Saving	Respondents are asked: 'Do you save any amount of your income, for example by putting something away now and then in a bank, building society or post office account other than to meet regular bills? Please include share purchase schemes and Personal Equity Plan schemes.' If respondents do save some money each month they are asked how much.	A household saving ratio is calculated. The amounts saved each month by all members of a household are summed and divided by household income.
	Mortgage income gearing	Respondents who have a mortgage are asked to state the size of their last total monthly instalment on the mortgage.	Total monthly mortgage and loan instalments are divided by household monthly income, on the equivalent basis for a standard family unit.
Quantitative-stock measures	Unsecured debt	Respondents are asked to state the total amount of unsecured debt they owed, including: hire purchase agreements; personal loans (from a bank, building society or other financial institution); credit cards; store cards; DSS Social Fund loans; any other loans from a private individual; overdrafts; student loans.	Household unsecured debt as a percentage of income is calculated. The amounts owed by all members of a household are summed and divided by household income.
	Secured debt	Respondents are asked to state the total amount of outstanding loans on all property they or a member of their household own.	Household secured debt is added to household unsecured debt and divided by income to give total household debt as a percentage of household income.
	Savings	Respondents are asked how much they currently hold in: saving accounts with banks, the post office and building societies; TESSAs and ISAs; National Saving Certificates.	The amounts held in savings by all members of a household are summed.
	Other financial investments	Respondents are asked how much they hold in: premium bonds; unit trusts/ investment trusts; Personal Equity Plans; shares (UK or foreign); National Savings Bonds (capital, income or deposit); other investments, government or company securities.	The amounts held in financial investments by all members of a household are summed and added to household savings to give total household financial assets.
	Housing wealth	Households who own their home or who are buying it with a mortgage are asked to provide an estimate of the current value of their house.	A household's housing wealth is summed with household financial assets to give total household assets.
Qualitative measures	Housing payment problems	All respondents are asked: 'In the past twelve months would you say you have had any difficulties paying for your accommodation?' We analyse the results for mortgage-holding households only.	A mortgage-holding household is considered to have mortgage payment problems if it answers yes to this question.
	Unsecured debt payment problems	All respondents are asked: 'Do you or anyone in your household have to make repayments on hire purchases or loans? Please do not include mortgage loans but do include DSS Social Fund loans.' If respondents do make such repayments they are asked: 'To what extent is the repayment of such debts a burden on your household? Would you say it is a heavy burden, somewhat of a burden or not a problem?'	An individual is considered to be under financial pressure if repayments on these debts are considered either 'somewhat of a burden' or a 'heavy burden'.
	Pension schemes	If a respondent's company runs a pension scheme the respondent is asked if they are a member of the scheme. Respondents are also asked whether they have a private pension scheme.	

Table B summarises the distribution of secured (ie mortgage) and unsecured debt-income ratios across households with gross debts in 1995 and 2000.(1) For mortgage holders, the total (mortgage plus unsecured) debt-income ratio for the top decile of households (ie those with the highest debt-income ratios) was twice that of the median household in 2000 (286% and 142% respectively), and nearly six times higher than for the bottom decile (49%). The variation in unsecured debt-income ratios was even more pronounced in 2000, ranging from over 50% for the top decile to less than 10% at the median and less than 1% for the bottom decile.

The ratio of total debt to income was almost the same in 1995 and 2000 for the median mortgage-holding household. But, importantly, the total debt-income ratio fell a little among the households with the highest such ratios, while rising modestly at most other points of the distribution. By contrast, unsecured debt-income ratios rose more significantly throughout the debt distribution.(2)

Turning to debt-income ratios by the age and income of the household head, standard life cycle considerations suggest that young and relatively low-income households would tend to have the highest debt-income ratios. This is confirmed by the BHPS data, summarised in Tables C and D.(3) Total debt-income ratios of mortgage-holding households, and unsecured debt-income ratios of all households with unsecured debt commitments, were both broadly inversely

(1) An advantage of disaggregated data is that we can focus on the distribution of debt among indebted households only, as well as among all households (whether indebted or not). Aggregate statistics provide information only on all households.
(2) It should be noted that households are likely to have moved within these groups between 1995 and 2000.
(3) Similar data to those presented in Tables C and D and Charts 2 and 4 were reported in the *Financial Stability Review*, June 2002, pages 81–83.

Table B
The distribution of mortgage and unsecured debt of borrowers(a)

Variable	Sample	Year	Percentiles of the population				
			90th	70th	50th	30th	10th
Total debt (mortgage debt plus unsecured debt) as a percentage of income (%)	Mortgage holders	1995	294.4	183.8	141.5	95.9	45.4
		2000	285.9	191.9	142.4	98.8	49.0
Unsecured debt as a percentage of income (%)	Households with unsecured debt (b)	1995	32.9	13.5	6.3	2.3	0.6
		2000	51.5	20.7	9.8	3.9	0.8

Sources: BHPS and Bank calculations.

(a) Percentiles shown range from the most indebted (90th) to the least indebted (10th).
(b) Here households with unsecured debt include all households with unsecured debt, whether mortgage holders or not.

correlated with household income and age in both 1995 and 2000. But it should be noted that the debt held by the youngest and lowest-income households accounted for only a small proportion of total household debt in the BHPS sample, and that proportion fell between 1995 and 2000.(1)

The comparison between 1995 and 2000 shows that total debts relative to income rose most rapidly for the lowest-income mortgage-holding households.(2) Moreover, unsecured debts more than doubled in relation to income between 1995 and 2000 for the lowest-income households. The higher levels, and in some cases more rapid growth, of debt-income ratios among the youngest and lowest-income households are important findings, given that BHPS data also indicate that these are the households most vulnerable to financial and other shocks likely to increase financial stress, such as spells of unemployment or unexpected increases in interest rates.

Income gearing measures

While high levels of debt in relation to income may make households more vulnerable to adverse financial shocks, they will not impose immediate financial pressure if the cost of servicing debt remains modest in relation to incomes.

The BHPS data allow the construction of a measure showing the distribution of mortgage income gearing (see Chart 1) from 1991. As with the distribution of total debt-income ratios among mortgage-holding households, stability at the median hides variation at other points in the distribution. Just as the debt-income ratio fell between 1995 and 2000 for the mortgage-holding households with the highest such ratios, so financial pressure, as measured by debt-service costs, has eased over the past decade among the households with the highest income gearing ratios. Mortgage income gearing at the 90th percentile (that is, the decile of households with the highest mortgage income gearing) fell from 38% in 1991 to 28% in 2000,

Table C
Total debt as a percentage of income (mortgage holders only)(a)

	1995		2000	
	Contribution to total debt of sample	Average debt as a percentage of income	Contribution to total debt of sample	Average debt as a percentage of income
Household income (£)				
Up to 11,499	6.9	334.3	4.9	432.0
11,500–17,499	10.4	210.6	6.9	208.5
17,500–24,999	20.6	155.8	15.2	182.2
25,000–34,999	26.5	132.5	22.1	146.4
35,000–49,999	21.6	119.2	28.3	127.6
50,000+	14.0	104.2	22.7	106.9
Age of household head				
16–24	4.1	187.4	3.2	182.8
25–34	34.1	171.4	30.4	172.3
35–44	35.1	145.5	39.9	153.3
45–54	20.7	111.6	19.7	104.0
55–64	4.8	85.2	5.5	97.5
65+	1.1	86.7	1.3	109.4

Sources: BHPS and Bank calculations.

(a) The total debt of the sample was calculated by summing the total debt of all households with a mortgage in the BHPS sample. The contributions of the debt of different income and age groups to the total sample debt were calculated by summing the total debt of all mortgage-holding households within each age or income group and dividing by the sample total.

Table D
Unsecured debt as a percentage of income (households with unsecured debt)(a)

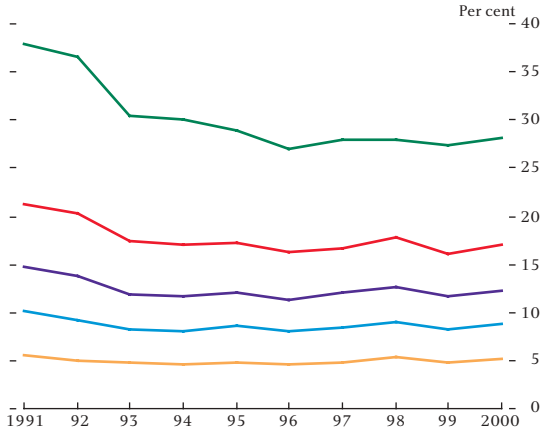
	1995		2000	
	Contribution to total debt of sample	Average debt as a percentage of income	Contribution to total debt of sample	Average debt as a percentage of income
Household income (£)				
Up to 11,499	8.7	16.3	10.2	35.9
11,500–17,499	12.2	15.1	8.4	19.1
17,500–24,999	21.1	12.9	15.9	19.7
25,000–34,999	26.7	11.1	22.3	17.0
35,000–49,999	19.8	9.7	25.5	16.1
50,000+	11.5	9.2	17.8	12.6
Age of household head				
16–24	8.6	17.4	11.2	29.7
25–34	29.7	12.3	27.9	19.1
35–44	28.3	11.3	30.5	17.2
45–54	23.0	11.3	19.3	13.8
55–64	7.5	8.5	8.1	13.6
65+	2.8	7.8	3.0	13.4

Sources: BHPS and Bank calculations.

(a) The total unsecured debt of the sample was calculated by summing the total unsecured debt of all households in the BHPS sample. The contributions of the debt of different income and age groups to the total unsecured debt of the sample were calculated by summing the total unsecured debt of all households within each age or income group and dividing by the sample total.

(1) This fall, however, is of limited significance given the small sample size of this group.
(2) There is little evidence to suggest that these increases were due to the rise in the number of students and the introduction of university tuition fees between 1995 and 2000. Excluding students from the sample lowers average unsecured debt as a percentage of income in the 2000 sample from 9.5% to 9.3%. Changes in unsecured debt as a percentage of income are similarly small across income and age groups when students are removed from the sample.

Chart 1
Mortgage income gearing(a)



Sources: BHPS and Bank calculations.

(a) 10th, 30th, 50th, 70th and 90th percentiles shown.

with all of this fall concentrated in the first half of the decade. It should be emphasised, however, that nominal measures of mortgage debt service do not take account of movements in the real cost of servicing a mortgage.(1)

It is also significant that mortgage income gearing did not pick up substantially at any of the percentiles shown in the late 1990s, despite the rapid accumulation of secured debt over that period. This reflects buoyant household income growth and low and declining effective interest rates between 1995 and 2000.

Balance sheet indicators

The aggregate household sector balance sheet and indicators derived from it, such as capital gearing, are also frequently used to assess the financial health of the sector. In recent years, households in aggregate have been rapidly acquiring both assets and liabilities. The issue raised in the minutes of the June 2002 MPC meeting was that aggregate data cannot reveal whether it is the *same* households acquiring debt *and* building up assets. This section looks at information from the BHPS on both sides of the balance sheet of particular groups of households.

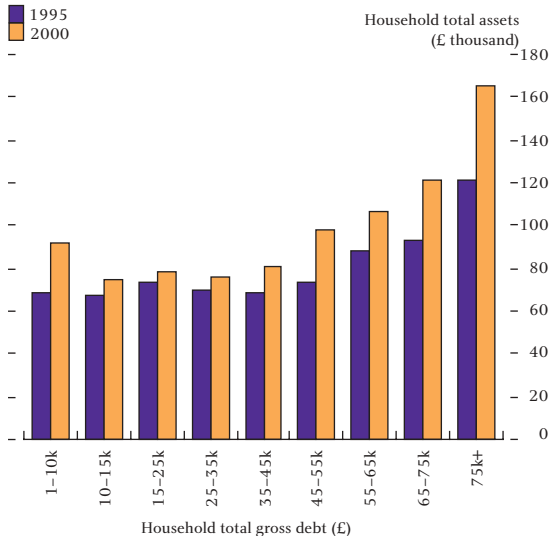
The BHPS suggests that, for mortgage holders, the most indebted households (with gross debts of more than £75,000) also had the highest levels of gross assets in both 1995 and 2000 (see Chart 2).(2) Furthermore, the gross assets of these households rose more rapidly between 1995 and 2000 than the gross assets of less indebted households. For households with unsecured debt, whether mortgage holders or not, those with the largest amounts of unsecured debt (more than £10,000) also had the highest levels of gross assets (Chart 3).(3) These households' assets fell somewhat between 1995 and 2000, however, unlike the assets of other households (except the least indebted).

Total gross assets, of course, include housing assets. The rapid growth of house prices in recent years will have directly raised the value of these assets, but will also have increased the liabilities of those households 'moving up', or entering, the housing market, through the need for larger mortgages in order to finance house purchase. It is perhaps more instructive to consider households' *net* asset positions to understand the crucial role of housing in the household sector's balance sheet. The BHPS reveals that the most indebted households, whether mortgage holders or not, had the highest levels of net assets in 2000, as well as the highest levels of net financial liabilities (including mortgage debts but excluding housing assets) (Chart 4). At the level of house prices prevailing in 2000, positive net housing equity more than offset non-housing debts for the most indebted (and indeed other groups of) households (Chart 5).

The finding that the most indebted mortgage-holding households also held the largest amounts of total assets may not be surprising because it accords with intuition and casual observation—those households with large mortgages tend to own more expensive houses. So it helps to account for the finding that those households that have been building up debt on the one hand are the same households as those who have been accumulating assets on the other.(4) But the two other

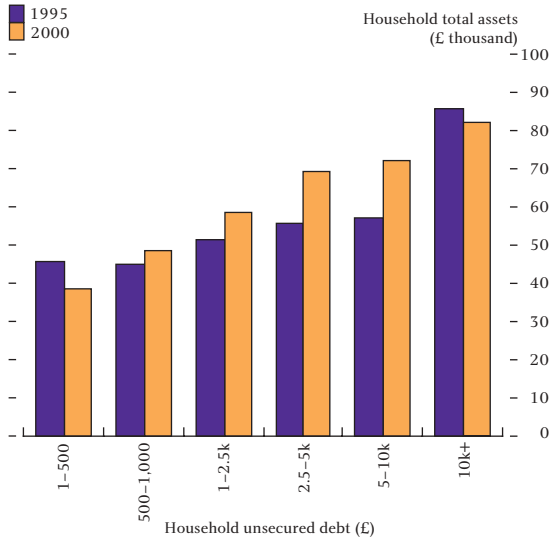
(1) Nominal measures of debt-servicing costs remain useful indicators of cash-flow pressure. The difficulties of measuring and comparing indicators of income gearing over time are discussed in 'Box 9: Measures of household income gearing' in the *Financial Stability Review*, June 2002, page 82. Note that the BHPS measures of mortgage income gearing include principal repayment as well as debt interest elements, unlike the National Accounts measures.
(2) To prevent outliers distorting averages any observations over the 99th percentile were replaced by the 99th percentile. This was done for all asset and debt data.
(3) It could be argued that if the number of households in each debt and asset group is different then Charts 4–7 fail to reflect the relative importance of these different groups in the BHPS sample. But average asset levels across different percentile ranges of household debt (to ensure similar numbers of households in each group) show similar patterns as in Charts 2 and 3. The majority of households with debt within certain percentiles of the debt distribution also had assets in the same or adjacent percentiles of the asset distribution. The extent to which the distribution of debt and assets in these charts represents the distribution in the United Kingdom as a whole also depends on how representative the BHPS sample is, see footnote 4 on page 411.
(4) This conclusion also holds if we compare changes in stocks of assets with changes in debt-to-income ratios.

Chart 2
Average total assets at different levels of household indebtedness (mortgage holders only)



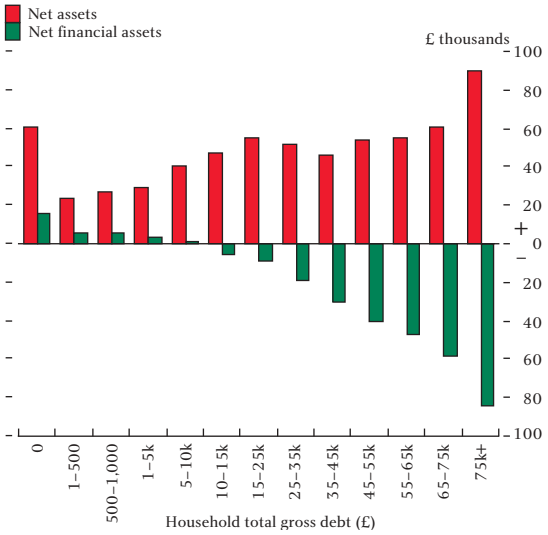
Sources: BHPS and Bank calculations.

Chart 3
Average total assets at different levels of household unsecured debt (households with unsecured debt)



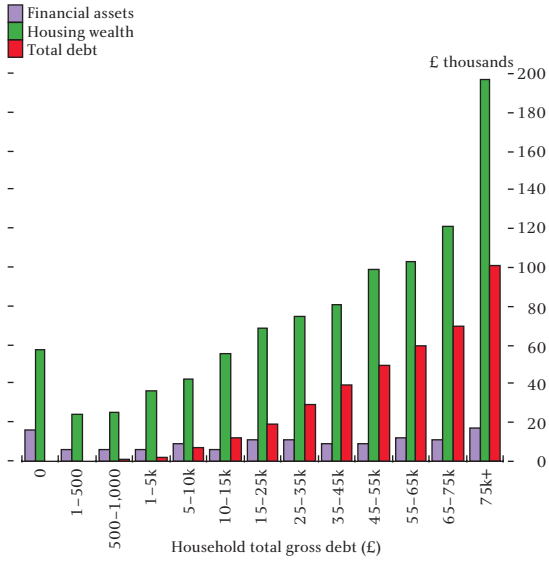
Sources: BHPS and Bank calculations.

Chart 4
Average net assets at different levels of household indebtedness in 2000



Sources: BHPS and Bank calculations.

Chart 5
Average financial assets, housing wealth and debt at different levels of household indebtedness (2000)(a)



Sources: BHPS and Bank calculations.

(a) The values of housing wealth used in Charts 4 and 5 are not directly comparable with those in Charts 2 and 3. In 2000, households who owned any property other than their current home were asked the value of the additional property. This question was not asked in 1995. To enable accurate comparison between the two years Charts 2 and 3 do not include the value of any additional property. However, Charts 4 and 5, which are for 2000 only, include the value of *all* property owned by households.

main BHPS findings in this area are much less obvious: that households with the highest levels of unsecured debts should also have the highest gross assets; and that the most indebted households should also have the most net assets. These results are significant and suggest that gross indebtedness is concentrated among the wealthiest households, who in most circumstances may be able most easily to liquidate assets as necessary to pay off debts.

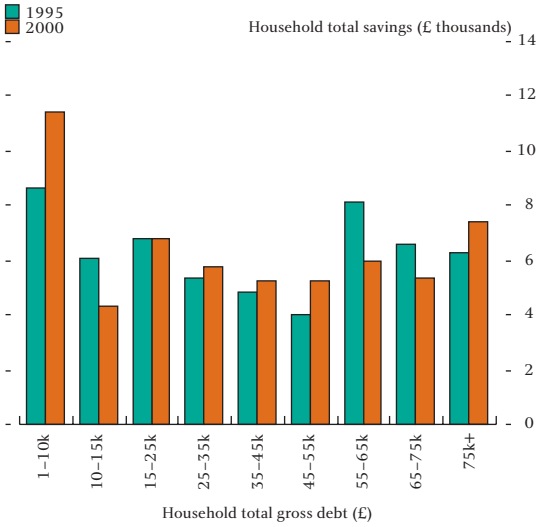
A crucial qualification, however, is that the heavily indebted mortgage-holding households could be vulnerable in the event of a major correction in the housing market, notwithstanding their higher net assets, especially if that correction were accompanied by falling incomes. Since 2000, rapid house price rises, together with the associated strong growth in households' mortgage borrowing, will have further inflated both sides of the aggregate household sector balance sheet. As noted in the November *Inflation Report*, recent rates of

house price inflation are unsustainable. The Monetary Policy Committee's central projection in November was for a marked slowdown in house price inflation, with prices likely to be broadly stable in two years' time. But the Committee noted that there were major risks around this central projection, including the possibility of continuing high house price inflation in the near term, followed by a subsequent sharp correction. In the event of a sharp fall in house prices, highly leveraged households would experience a correspondingly greater deterioration in their net worth.

Moreover, if households also experience a fall in their incomes, say because of a rise in unemployment, they may then find it more difficult to realise some of their housing equity, either by selling their property or by increasing secured borrowing. In such circumstances their ability to maintain spending levels would depend upon their available liquid assets (ie assets excluding housing and equity wealth). If it is assumed that households' savings (as defined in the BHPS), as opposed to financial investments, are liquid, it is possible to assess liquidity at different levels of household indebtedness (see Charts 6 and 7).(1) The distribution of these liquid assets across mortgage-holding households suggests that the least indebted such households had the highest levels of liquid assets in 1995 and 2000. More generally, average levels of liquid assets among more indebted mortgage-holding households were not substantially different from liquid asset holdings of less indebted such households. And for some of the more indebted such households (but not the most indebted group), liquid asset holdings fell between 1995 and 2000. The distribution of liquid assets across households with different levels of *unsecured* debt was also fairly flat in 2000. These data tend to reinforce the concerns about the possible vulnerability of the more indebted households to corrections in the housing or equity markets.

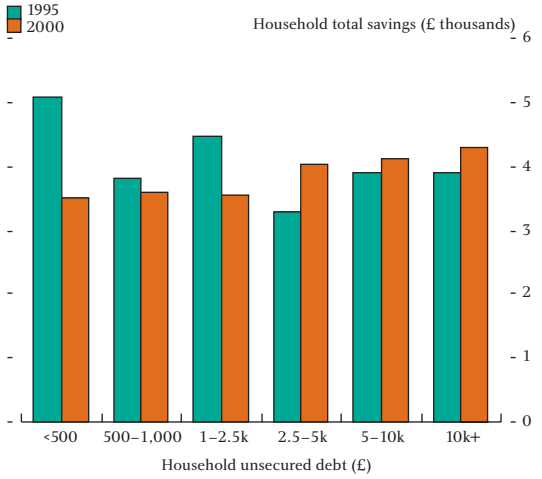
In addition to their gross and net total and liquid asset positions, the BHPS also permits an analysis of the incomes of households with differing levels of gross debts. This is also crucial to their ability to repay and, in particular, service debts. Households with higher levels of debt had higher incomes than those with lower levels of debt both in 1995 and 2000 (see Charts 8 and 9). And the incomes of the most indebted households

Chart 6
Average liquid assets at different levels of household indebtedness (mortgage holders only)



Sources: BHPS and Bank calculations.

Chart 7
Average liquid assets at different levels of unsecured debt (households with unsecured debt only)



Sources: BHPS and Bank calculations.

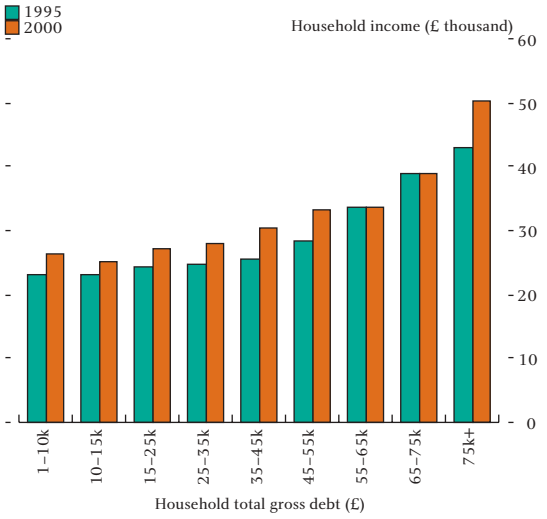
generally rose by more (in absolute terms) than those of most other household groups between 1995 and 2000.

Qualitative indicators of debt sustainability

Although debt-income ratios, income gearing and balance sheet indicators are widely used measures of financial vulnerability or stress, movements in these ratios should be interpreted with caution. Higher debt-income ratios may represent a desired adjustment to lower inflation and interest rates by households confident of servicing their increased debts. The qualitative information available from the BHPS is based

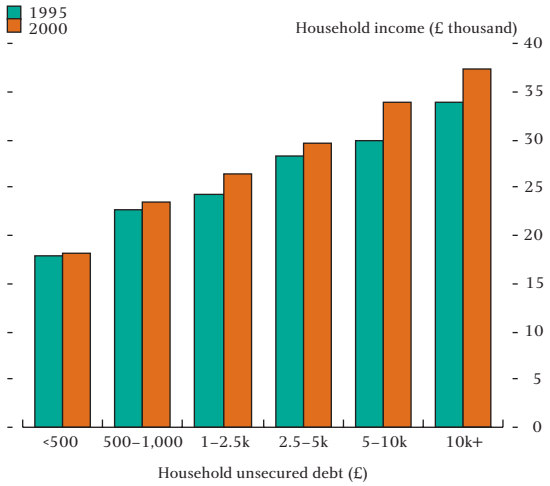
(1) Savings (as defined in the BHPS, Table A) may include notice accounts or other saving vehicles where early withdrawal of funds may incur penalties. However, these savings are in general more liquid than the financial investments defined in Table A.

Chart 8
Average household income at different levels of household indebtedness (mortgage holders only)



Sources: BHPS and Bank calculations.

Chart 9
Average household income at different levels of unsecured debt (households with unsecured debt)



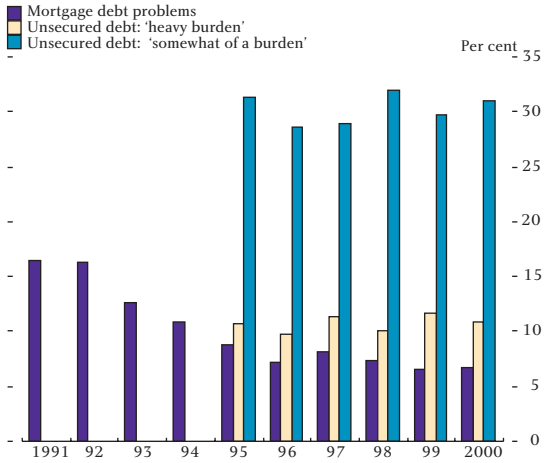
Sources: BHPS and Bank calculations.

on households' own assessments of the burden of their debt.

According to responses to the BHPS questionnaires, the proportion of mortgage-holding households reporting mortgage debt problems fell from 16.5% in 1991 to 6.7% in 2000 (Chart 10). The proportion of households with unsecured debt commitments that found them either a 'heavy burden' or 'somewhat of a burden' remained broadly stable at around 11% and 30% respectively between 1995 and 2000 (Chart 10).

Among those households who reported *no* difficulty meeting their unsecured loan commitments, the average

Chart 10
The proportion of households reporting secured or unsecured debt payment problems(a)



Sources: BHPS and Bank calculations.

(a) Households reporting mortgage debt payment problems are given as a percentage of all households with mortgages. Households reporting unsecured debt payment problems are given as a percentage of all households with unsecured debt commitments.

unsecured debt-income ratio rose from 11.9% in 1995 to 15.6% in 2000 (Table E). The average unsecured debt-income ratio among those households who considered their unsecured debt to be a 'heavy burden' was 22.3% in 1995; five years later in 2000 a similar level of debt in relation to income was considered to be only 'somewhat of a burden', while the average debt-income ratio considered to be a 'heavy burden' had risen to 36.3%. A similar pattern is apparent among those who thought their debt burdens were 'somewhat of a problem'.

Table E
Perceived sustainability of debt burdens

			Average level of unsecured debt as a percentage of income	
			1995	2000
Unsecured debt	Unsecured loan commitments are:	A heavy burden	22.3	36.3
		Somewhat of a burden	16.9	23.5
		Not a problem	11.9	15.6
			Average level of total debt as a percentage of income	
			1995	2000
Mortgage debt	Have you had difficulty meeting mortgage repayments:	Yes	213.7	206.2
		No	134.7	136.4
			Average level of mortgage income gearing	
			1995	2000
Mortgage debt	Have you had difficulty meeting mortgage repayments:	Yes	26.1	23.4
		No	14.2	15.2

Sources: BHPS and Bank calculations.

Combining quantitative and qualitative disaggregated data in this way permits an assessment of whether the level of debt that households perceive as sustainable has changed over time. It is, of course, likely that any such perceptions will reflect the macroeconomic environment and be sensitive to changes in that environment. For example, households' perceptions that their sustainable debt burdens have risen may reflect their confidence that a low interest rate environment can be maintained. If interest rates were to rise significantly, their views on the sustainability of current debt levels could rapidly become less sanguine (although much would depend on the reasons for any such rise in interest rates).

Conclusions

Financial pressure reflects the difficulty that households experience in repaying debts. The willingness of households to take on new debt and the burden of servicing debt play an important role in the transmission mechanism of monetary policy and the risks for financial stability in the event of an adverse shock. In this article, we have taken three measures of household financial stress—debt-income ratios, debt-service burdens and debt-asset relationships derived from household balance sheets—and used disaggregated data from the latest British Household Panel Survey to look at the level of and changes in the distribution of financial stress over time.

Among the main conclusions to emerge from these data are the following:

(i) Total debt-income ratios of mortgage-holding households generally rose in the second half of the 1990s, except for a fall among those households with the highest such ratios. The increases were largest for the lowest-income households.

(ii) In contrast, unsecured debt-income ratios rose significantly more over this period at all points of the distribution, and by most (in percentage points) for the households with the highest such ratios, again generally the lowest-income (and youngest) households. These households are likely to be more vulnerable to financial and other shocks, such as unexpected increases in interest rates or spells of unemployment.

(iii) Debt-servicing burdens in the mortgage market fell by most in the first half of the 1990s among households with the highest levels of income gearing, and have been broadly stable at all points of the distribution in the second half of the 1990s.

(iv) The households with the highest absolute levels of both mortgage and unsecured debts tended also to have the highest levels of income and net wealth in both 1995 and 2000.

(v) Comparisons between 1995 and 2000 suggest that rapid growth of both sides of the aggregate household sector balance sheet over that period was more associated with the same households accumulating both liabilities and assets, rather than with some households mainly accumulating liabilities while others were mainly increasing their assets. This reflects the rapid growth of house prices in recent years; the most indebted households may therefore be somewhat more vulnerable in the event of a major correction in the housing market, notwithstanding their greater net assets.

(vi) More indebted households did not, overall, have substantially greater liquid assets than less indebted households, leaving the former potentially more exposed in the event of an adverse shock to income or an increase in interest rates.

(vii) According to responses to the survey questionnaires, the proportion of mortgage-holding households reporting problems in meeting their mortgage obligations fell significantly in the 1990s, while the proportion reporting problems in meeting their unsecured debt obligations was broadly stable. In both cases, households perceived themselves as being able to sustain significantly higher levels of debt in relation to their incomes. But these perceptions could rapidly become less sanguine if interest rates were to rise substantially or incomes fall.

In some respects, these conclusions imply that, given the changes in the distribution of household debt in recent years, the sector overall may be somewhat more vulnerable than the aggregate measures might suggest. And two important qualifications should be emphasised. First, the survey covers a period that ended some two years ago. Since 2000, household sector borrowing, in particular, has continued to grow rapidly, as has housing wealth, while financial wealth has declined with the falls

in equity markets. These developments are likely to have reinforced some of the trends highlighted in this article. Second, we have not in this article looked at heterogeneity within the various household groups examined: it is possible, for example, that some of the most indebted groups might not have particularly valuable houses or large incomes.

The BHPS provides a rich seam of material for further research. Other indicators might be tracked, for example ratios of net assets to income. And changes in the financial characteristics of individual households over time, in particular households in the 'vulnerable' tails of the distributions, could also be analysed. This might permit more research into the factors determining the evolution of individual household indicators of financial stress, and their responsiveness to shocks such as unexpected falls in house prices or rises in interest rates. Such work might in particular seek to determine how such scenarios might affect the proportion of households in distress. Finally, research might also look at the extent to which movements in aggregate data can be explained by the behaviour of different disaggregated groups of households. The Bank hopes to consider several of these avenues for further work in the months ahead.