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Use of credit and arrears on debt among low income families in the United Kingdom

by

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Abstract

Household accumulation of debt and arrears on debt, especially among low income families, is an extremely topical issue in the UK media and in policy circles. The paper utilises data from the UK's *Survey of Low Income Families* in order to examine use of credit, and default and arrears, among low income families with children. It shows how credit use and accumulation of arrears differs between single parents and couples with children, and also between homeowners and renters. It also briefly examines the persistence of arrears on specific forms of credit using the panel element of the data set, now named the *Families and Children Survey*.

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1. Introduction

The problem of debt among low income families in the United Kingdom has received widespread attention in the media in recent months.¹ In May 2003, Citizens Advice, which represents the 2000 or so Citizen's Advice Bureaux around the country, warned that the number of people struggling with debt problems had risen by 47% over the past five years.² The campaign group 'Debt on our Doorstep' argues that there are serious problems of default and of arrears recovery among low income families arising from excessive interest rates on loans, incomplete understanding of loan conditions, and 'socially irresponsible lending' by some high street lenders.³

The evidence on the pattern of debt and, in particular, of debt-induced 'financial stress' for low income families underpinning these statements comes from a mixture of sources – aggregate data from some classes of lenders, case loads and case studies from specialised agencies, and more detailed analyses of urban localities. To understand fully the prevalence of problems with debt among low income families, however, we need a suitably representative sample of 'at risk' households. Such data could be used to determine the general incidence of credit arrangements utilised by households, and to pin down the financial problems that may arise from outstanding debt. So far, most academic studies of the issue have also focussed on case studies of relatively small numbers of people (e.g. Dominy and Kempson, 2003) and/or largely qualitative data sets (Economic and Social Research Council, 2002; Kempson, 2002).

This paper describes the sources of credit utilised by low income families, the patterns of arrears in payments of outstanding debt, and default on household bills using a relatively new UK household microdata set. This is the Families and Children Survey (FACS) – a panel survey of low income families with children that was first established as the Survey of Low Income Families (SOLIF) in 1999. This is the first data set, to our knowledge, that provides a rich mixture of qualitative and quantitative information on

¹ For example, the Financial Times: 'Fears rise over debt level of poor', front page November 19th, 2002.

² "In too deep: CAB clients' experience of debt" (Citizen's Advice, 2003) used surveys and an analysis of 8000 cases to argue that both the incidence and depth of debt problems had increased significantly in recent years.

³ See <http://www.debt-on-our-doorstep.com/>

these issues for a large sample of randomly sampled low income families.⁴ The primary focus of this analysis is on the first wave of this data (SOLIF, 1999), although we exploit the panel element to do some simple analysis of persistence in the use of particular forms of credit and, in particular, in the persistence of default and arrears.

The primary focus of the paper is descriptive given the dearth of information currently available on this important topic. We wish to understand what types of credit low income families use, and whether problems of arrears and default are pervasive. The paper focuses on five areas of household finances where problems of arrears and default might arise. These are credit-financed purchases, loans from financial organisations (ranging from banks to local moneylenders), loans from family, and arrears arising from non-payment for housing, and for utilities. We examine the associations between different types of default – for example, whether arrears in payment of rent and mortgages are associated with arrears in utility bills. We find strikingly different patterns of debt among one parent and low income couples with children, and between tenants and homeowners. We keep econometric techniques to a minimum in this paper, although in our background paper (Bridges and Disney, 2002) we use count models to show how there is greater heterogeneity across households in the incidence of default and arrears than there is in the use of credit facilities. Moreover we briefly examine persistence in the use of credit arrangements and in the reporting of arrears and other indicators of ‘financial stress’, using the panel element of the data.⁵

Our results suggest that low income families indeed utilise a variety of credit arrangements. Moreover the proportions using different arrangements are rather different from those in the population as a whole, with greater use of catalogues and mail order schemes, relative to credit cards, and loans from sources other than high street banks. This may illustrate constraints on access to normal ‘high street credit’. Some evidence for this arises from differences in arrangement by type of household, whether delineated by family composition, employment status and housing status. We suggest that

⁴ Waves 5 and 10 of the British Household Panel Survey ask a question about the magnitude of aggregate household debt, about ownership of specific assets and the use of particular credit instruments (Cox, Whitley and Brierley, 2002). Moreover, the BHPS is a representative sample of British households. However the questions on debt in the two waves are not fully comparable – see Banks, Smith and Wakefield (2002). The Family Expenditure Survey contains details of types/amount of loans, hire-purchase agreements and mortgages, but asks no questions on the level of overdrafts or credit card balances.

⁵ Exploiting the panel element of the data set to examine the covariates of credit and arrears of debt – for example whether changes in household circumstances induce changes in use of (access to) credit and of indebtedness is the focus of future work.

the absence of employment and home owning-related collateral may be an important factor in restricting access to credit for some low income families, but such families may also choose other sources of credit for a number of reasons that are unrelated to access. For example, temporary non-payment of regular bills such as utility bills, or loans from relatives, may be a less costly and cheaper alternative to bank loans or credit cards as a means of financing current expenditures.

What are the implications of these disparities in credit arrangements? A common perception is that, if low income households are excluded from prime credit outlets by adverse scoring from credit bureaux, such households will only get credit from secondary and unregulated markets where effective interest rates are much higher (for example, unregulated moneylenders) and/or less transparent (such as through mail order catalogues). In those circumstances, the threat of a 'cycle of indebtedness', in which excess interest rates exacerbate indebtedness and loans are never paid off, constitute a real social concern. We can, to some extent, examine this proposition by looking at the persistence of debt amongst the sampled individuals.

Overall, however, much of the public and media portrayal of the consumer 'debt problem' (whether of low income families or of families in general) is somewhat perverse to the economist.⁶ After all, the life cycle hypothesis of saving suggests that individuals will spend some parts of their life in debt whilst saving and decumulating assets in other parts of the life cycle. Even in low income households, persistent debt over a number of years may not be a concern if those households expect to improve their economic situation in future years. As with poverty analyses, a 'snapshot' of debt at a certain point of the life cycle gives only limited insight. Nevertheless it is important to understand the pervasiveness and nature of household debt among such families, not least because emphasis in public discussions on one particular source of household debt, such as the size of borrowing on credit cards, may be of less importance to these particular families. Moreover, the *type* of credit arrangements taken out by low income families may lead them to face cumulative debt problems that override life cycle considerations.

It is also important to note that individuals typically simultaneously incur debts and have some forms of wealth.⁷ SOLIF/FACS is incomplete in its provision of

⁶ Usually led by the Daily Express's front page headlines: 'Debt Disaster' (20th November 2002), 'Spending is Out of Control: Consumers in massive debt as credit card borrowing and re-mortgaging hit new record' (23rd April 2003).

⁷ In the US, for example, 70% of households with a credit card carry interest-accruing balances at any one time whilst also typically having money in savings accounts earning lower rates of interest than

measures of household wealth to match the comprehensive information on debt, thus mirroring, in a perverse way, other data sets that report saving and wealth but which lower-censor measures of financial assets at zero. The survey does however provide some information on assets and saving behaviour. Crucially, we also know about home ownership and human capital in the sample and we find family types where it is fairly clear that debt is not offset by large amounts of other wealth. If, then, there truly is a UK ‘debt problem’, it is likely to be concentrated amongst the families sampled in this data set.

A final general point is to note that the analysis in this paper utilises a mixture of quantitative and qualitative responses. Indicators of credit arrangements used, and debts outstanding are fairly straightforward, but data on default and arrears are less so. In the context of a credit card, for example, reported arrears can mean failure to meet the minimum repayment, exceeding the ceiling (credit limit), or being unable to pay off the whole amount in the current period (which need not strictly be arrears, or even an indicator of ‘financial difficulties’ – see footnote 7). In turn, qualitative responses to questions concerning ‘difficulties’ in paying particular bills or ‘being behind’ on payments in others are almost certainly genuine indicators of financial stress but may mean different things to different respondents. Again, however, we assert that so little is known on a representative sample of the fraction of low income families that are suffering financial difficulties with repayment of debt, that the information here contains ‘valued added’ on all these issues.⁸

2. Data Description: The Survey of Low Income Families

The Survey of Low Income Families was designed to examine in detail the well-being of a representative sample of low income families with children in Britain. It focuses in particular on household demographics, living arrangements, housing status, work experience, job search, social security benefit take-up and the financial position of

that accrued on the credit card (see Laibson, Repetto and Tobacman, 2003). For evidence on simultaneous ownership of assets, saving and debt among UK households, see Banks, Smith and Wakefield (2002).

⁸ The influential study by Citizens’ Advice (2003) grosses up numbers in financial difficulties from CAB caseloads. There are two difficulties of interpretation here (i) the sample of people who approach CABs may not be representative of the relevant segment of the population insofar as the sample may have excessive debts but (ii) those who approach a CAB because they are aware of their ‘debt problem’ may actually be in better shape than those who have serious problems but have not yet taken any kind of advice. The parallel with various forms of addiction is obvious.

the household.⁹ The 1999 Survey is based on interviews conducted between June and September 1999, and includes the following types of families:

- Lone parents whatever their employment or financial situation.
- Couples with children who work less than 16 hours a week, or where no-one is in paid work.
- Couples who receive Family Credit¹⁰.
- Couples where at least one partner is working, and who were eligible for family credit but not claiming it; and working couples whose income is up to 35 per cent above the point at which they would have been eligible for family credit.

The sample is representative of all single parent families. However, it is not representative of all couples with children, since only couples with children in the lower part of the income distribution are included in the survey.¹¹ The data used in this paper comprises of 5397 families: 2543 couples and 2854 lone parents. Some of the analyses use smaller samples where there are missing responses on particular items – we discuss our techniques for handling missing responses as the argument proceeds. Summary statistics of the data are presented in Table 1.

The first striking feature is the significant difference in home ownership rates between couples with children and single parents. Over 55% of couples with children are homeowners compared to 31% of single parents. Among couples, the woman is typically the respondent, which is why ‘partner’s age’ and ‘partner’s income’ are higher than own age and income. Homeowners are more likely to work than tenants, and single parents more likely to work than the respondent among couples. Almost all homeowners in the sample have a mortgage, although we abstract from housing debt questions here given the limited information on housing finance and house value available in the survey.

⁹ For further details, see Marsh *et al* (2001) and Marsh and Rowlingson (2002).

¹⁰ Between 1988 and October 1999, Family Credit was the main in-work benefit in Britain (Dilnot and McCrae (1999)). It was designed to encourage low income families with children to remain in work. In order to be eligible for family credit a family with children needed to have at least one adult working more than 16 hours a week. In October 1999 Family Credit was replaced by the Working Families’ Tax Credit (WFTC).

¹¹ Up to a maximum of 35% above the upper threshold for eligibility for Family Credit for a family of given composition.

Table 1
Summary Statistics

	Mean				
	(in brackets, standard deviations)				
	Home- Owning Couples	Tenant Couples	Home- Owning Singles	Tenant Singles	Total*
Number in each category	1347	1066	834	1827	5397
<i>Characteristics</i>					
White	0.88	0.87	0.92	0.91	0.89
Age	37.51 (7.61)	34.10 (8.36)	39.78 (7.77)	33.86 (8.53)	35.70 (8.49)
Partner's age	40.51 (9.00)	37.19 (9.63)	-	-	38.92 (9.41)
Receives housing benefit	N/A	0.56	N/A	0.81	0.39
Receives disability benefit	0.15	0.23	0.06	0.09	0.13
Receives 'other' benefits	0.32	0.70	0.60	0.90	0.66
Working	0.57	0.29	0.75	0.37	0.47
Partner Working	0.81	0.58	-	-	0.71
Married	0.86	0.69	-	-	0.78
Number of children	2.14 (1.03)	2.21 (1.15)	1.59 (0.78)	1.78 (0.96)	1.93 (1.03)
No qualifications	0.20	0.36	0.25	0.43	0.33
Highest qualification: GCSE D-G	0.17	0.21	0.15	0.20	0.19
Highest qualification: GCSE A-C	0.43	0.32	0.34	0.30	0.35
Highest qualification: A-Level	0.11	0.06	0.12	0.04	0.07
Highest qualification: 1 st Degree	0.06	0.03	0.11	0.01	0.05
Highest qualification: 2 nd Degree	0.02	0.01	0.04	0.01	0.02
Usual weekly wage (for wage >0)	93.36 (55.14)	84.38 (48.37)	165.71 (110.52)	97.30 (70.47)	111.93 (82.42)
Partner's usual weekly wage (for wage >0)	205.08 (75.41)	165.68 (64.38)	-	-	189.85 (73.19)
Have any current accounts or savings accounts	0.90	0.64	0.88	0.50	0.70
<i>Credit and arrears (count variables)</i>					
Number of credit and borrowing arrangements	2.00 (1.44)	1.38 (1.18)	1.93 (1.41)	1.29 (1.12)	1.60 (1.32)
Number of sources of arrears/defaults observed	0.53 (1.23)	1.31 (1.68)	0.67 (1.38)	1.42 (1.64)	1.02 (1.55)

Note * 'Total' column includes 373 'others' – individuals living in accommodation that is rent free, shared ownership (own and rent property), some other arrangement or missing.

Educational qualifications are typically higher in couples than among single parents, as is the average number of children in the family. Access to a bank account, and use of credit cards and other borrowing arrangements, is higher among couples with children than single parents, but this is largely associated with differences in home ownership rates rather than family composition.¹² Finally, and centrally to our analysis, homeowners typically have more credit arrangements but are less likely to default than tenants. These questions are explored more fully in what follows.

Credit arrangements

Table 2 examines the use of credit to finance purchases. There are striking differences in credit use (other than mortgages) between homeowners and tenants and, therefore, between single parents ('singles') and couples with children, since homeownership is much more prevalent among the latter group. The overall proportion reporting using credit and charge cards (32%) is somewhat lower than the average in the British Household Panel Survey for a representative sample of households. The difference between the families in SOLIF and the population as a whole is driven by the much smaller fraction of tenants that have access to such cards and the preponderance of tenants among single parents.¹³ Homeownership is often the 'gateway' to access to credit arrangements of this type – even though tenants also have different characteristics from homeowners (for example, from Table 1, fewer of them work) – there is a 'homeownership effect' on access to credit.¹⁴ Nor is it likely that the disparate proportions of homeowners and tenants with credit arrangements simply reflect differences in the overall demand for credit rather than differences in access. This is confirmed by the use of catalogues and mail order, which is pervasive amongst both homeowners and tenants, and both single parents and couples with children, in our sample. Roughly a quarter of homeowners and 40% of tenants do not use credit overall – again the difference between single parents and couples with children arises largely through differential rates of homeownership.

¹² Of course the probability of homeownership and being a couple with children v. a single parent may be simultaneously determined, but this issue lies beyond the scope of this paper.

¹³ In the BHPS Wave 10 (2000), 53% of households report having a credit or store card. The fraction is slightly higher among heads of households aged 18-50. Note also the distinction between ownership and use of a card.

¹⁴ A simple count regression model of number of credit and borrowing arrangements, conditioning on family income sources, demographic characteristics and educational qualifications shows that homeownership is associated with a significantly higher number of credit arrangements for both couples with children (t-ratio 2.89) and single parents (t-ratio 3.51).

Table 3 considers how many families report problems of arrears on these various credit arrangements, conditional on having such arrangements. The incidence of arrears on minimum payments are fairly small, running at 8-9% of the sample, but the amounts of arrears are substantial for those that are in arrears. An important *caveat* is that respondents may interpret the question as one concerning outstanding balances, rather than difficulties in meeting the minimum repayment, which is a less onerous hurdle. Tenants are more likely to face financial difficulties, conditional on their lower use of these credit arrangements. A worrying statistic of some concern, combining Tables 2 and 3, is that roughly 1 in 20 of tenants (i.e. 0.5×0.1) face problems in repaying debt incurred through catalogue and mail order schemes.

Table 2
Percentage of Households who have Purchased Items on Credit

	Home- Owning Couples	Tenant Couples	Home- Owning Singles	Tenant Singles	Total*
Currently using at least one of the following forms of credit cards:					
Credit Cards (e.g., Access, Visa)	56.57	19.33	54.16	13.19	32.61
Charge Cards (e.g., American Express, Diners Club)	2.30	0.66	4.44	0.22	1.56
Shop or store cards (e.g., Marks and Spencer, John Lewis)	23.90	6.94	28.06	6.73	14.73
Uses Catalogues/Mail Order Schemes	48.18	52.25	40.41	53.09	49.32
Number of types of credit used per Household:					
0	24.28	40.06	27.82	42.26	34.83
1	39.35	46.62	36.09	48.11	43.43
≥ 2	36.16	13.04	35.85	9.47	21.47
<i>Base</i>	<i>1347</i>	<i>1066</i>	<i>834</i>	<i>1827</i>	<i>5397</i>

Notes * See Table 1. Number of types of credit does not add up to 100% due to missing information. 'Missing' comprises 0.26% of the total sample.

Table 3
Percentage of Households with Credit that are Unable to Meet their Minimum
Repayments – Credit Cards/Catalogues

	Home Owning Couples	Tenant Couples	Home Owning Singles	Tenant Singles	Total*	Base
Is currently unable to meet the minimum repayments on at least one form credit:	4.62	10.38	7.63	12.56	8.79	3503
Unable to meet the minimum repayments on:						
Credit Cards	4.07	8.38	5.97	8.43	5.54	1463
Charge Cards	0.00	14.29	0.00	0.00	1.19	84
Shop or Store Cards	1.86	6.76	3.42	5.69	3.27	795
Catalogues/Mail Order Schemes	3.08	9.69	6.82	12.16	8.60	2662
Average amount households who are behind with their repayments are unable to repay:						
Credit Cards	1330.76	588.93	833.52	537.29	881.95	77
Charge Cards	-	400.00	-	-	400.00	1
Shop or Store Cards	301.67	346	245.13	455.71	334.27	26
Catalogues/Mail Order Schemes	205.05	293.54	255.09	266.89	262.22	226

Notes: * See Table 1.

Borrowing from financial institutions

Whilst consumer spending may be underpinned by credit arrangements, families also have access to loans from banks, finance companies and other financial institutions for a variety of purposes. Table 4 describes the incidence of borrowing arrangements amongst low income families from both formal and informal sources. Around half of families in the sample have outstanding loans from one or more sources at the time of the interview. The proportions of borrowers do not differ across household types, but the sources of funds do vary especially when comparing homeowners with tenants.

Homeowners are roughly twice as likely as tenants to use bank loans and overdrafts. This also reflects the disparity in the extent of bank accounts held by the two groups (Table 1). Overdrafts are more prevalent than loans, presumably because many families have a small ‘automatic’ overdraft facility up to a limit (although limits will typically be low among these families). Informal sources of loans from friends and family are used by roughly one in six families – especially tenants and lone parents. Loans from local moneylenders are much less prevalent, but again are utilised almost wholly by tenants.

Table 5 reports on self-reported repayment difficulties among these families, conditional on obtaining the loan. This table suggests that difficulties in repayments are far more prevalent for financial loans than for credit arrangements, as described in previous tables. Loans from finance companies pose repayment difficulties for almost one in five of families, again primarily tenants. This table provides no clear support for the proposition that homeowners are more likely to default because they can borrow larger amounts, using the house as collateral. The more likely story, discussed in the context of the multivariate analysis below, is that problems of debt arise from low incomes, rather than from ‘irresponsible lending’ to homeowners by high street institutions. Default rates are also high for all types of families for informal loans and for loans from moneylenders. The second segment of the table, on average amounts of debt for those in debt, shows that overdue payments are substantial compared to those for credit cards and similar arrangements.

Table 4
Percentage of Households who have other Forms of Borrowing

	Home- Owning Couples	Tenant Couples	Home- Owning Singles	Tenant Singles	Total*
Is currently using at least one of the following forms of borrowing:					
- Bank Overdraft	52.79	47.93	53.48	46.79	49.94
- Bank Loan (excluding mortgage)	31.85	17.17	32.73	17.17	21.94
- Loan from a Finance Company	19.01	8.44	15.95	4.87	11.25
- Loan from a Money Lender or 'Tally Man'	11.43	13.32	9.47	13.46	12.06
- Loan, or Advance on Wages from Employer	1.11	5.82	0.72	6.90	4.19
- Loan from a Friend/Family	0.97	0.94	1.20	1.42	1.22
	12.25	17.07	14.27	20.85	16.79
Percentage number of loans per household (including bank overdrafts):					
0	47.07	51.69	46.28	52.98	49.81
1	33.93	35.74	35.97	36.07	35.59
≥2	18.86	12.19	17.51	10.72	14.35
<i>Base</i>	<i>1347</i>	<i>1066</i>	<i>834</i>	<i>1827</i>	<i>5397</i>

Notes: * See Table 1. 'Missing' is again 0.26% of the sample.

Table 5
Percentage of Households with Loans unable to Keep Up with Repayments

	Home Owning Couples	Tenant Couples	Home Owning Singles	Tenant Singles	Total*	Base
Is currently unable to keep up with the repayments on at least one of the following loans:	12.06	21.91	13.16	24.60	19.12	2124
Unable to keep up with the repayments on:						
<i>Bank Loan, excluding Mortgages</i>	2.34	12.22	5.26	8.99	5.27	607
<i>Loan from a Finance Company</i>	7.14	26.06	6.41	26.12	18.49	649
<i>Loan from a Money Lender or 'Tally Man'</i>	26.67	22.58	16.67	30.16	26.99	226
<i>Loan from a Friend or Relative</i>	26.38	24.18	24.58	22.57	24.70	903
<i>Loan from Employer</i>	7.69	-	-	7.69	4.55	66
Average amount households who are behind with their repayments are unable to repay:						
<i>Bank Loan, excluding Mortgages</i>	2030.67	1771.67	2333.71	2628.57	2167.76	29
<i>Loan from a Finance Company</i>	283.50	592.15	932.00	294.35	408.30	109
<i>Loan from a Money Lender or 'Tally Man'</i>	567.33	713.85	800.00	240.92	375.02	57
<i>Loan from a Friend or Relative</i>	1582.75	903.47	1575.61	439.46	904.52	204
<i>Loan from Employer</i>	500.00	-	-	2106.00	1570.67	3

Notes: * See Table 1.

Housing tenure and housing costs

Table 1 has already suggested that the perception of the UK as a nation of homeowners is less pertinent amongst families in this data set, where there is a clear divide between couples, the majority of whom own their homes and lone parents, the majority of whom do not. Table 6 gives some further particulars. Given that renters are typically poorer than owner occupiers and less likely to be in stable employment (see Table 1, and Goodman, Johnson and Webb, 1997), it is not surprising to find that the incidence of rent arrears is much greater than mortgage arrears (Table 7). The proportion of both couples and lone parents behind with rent payments is high. However, where present, mortgage arrears are more substantial (Table 7).

Table 6
Families by Percentage Types of Housing

	Couples	Lone Parents	Total
Owned outright	7.1	5.5	6.3
Being bought using a Mortgage/Bank Loan	45.9	23.7	34.1
Shared Ownership (owns and rents property)	0.6	0.8	0.7
Rented from Council/Housing Association	34.9	52.6	44.3
Private Rented	7.0	11.4	9.3
Other	2.4	2.6	2.5
Missing	2.1	3.4	2.8
<i>Base</i>	<i>2543</i>	<i>2854</i>	<i>5397</i>

Table 7
Percentage of Households with Housing Arrears and Amounts

	Couples	Lone parents	Total	<i>Base</i>
Rent Arrears:	32.4	35.5	34.1	<i>1668</i>
Mortgage Arrears:	7.5	11.8	9.1	<i>1878</i>
Average Arrears:				
<i>Rent (£,s)</i>	309.48	416.27	369.16	<i>535</i>
<i>Mortgage</i>	1281.70	1459.27	1367.16	<i>160</i>

Note: Rent arrears are only pertinent for those who pay some rent on the property.

Utility costs and other household bills

Notwithstanding the prevalence of various forms of borrowing and financial debt, the most common form of arrears among low income families is being behind with utility bills (including, gas, electricity, water, and council tax). Over 40% of lone parents, and 30% of low income couples with children are behind with bills for various household utilities and services (Table 8). Electricity bills are less prone to arrears, but this is explained by the fact that 49 per cent of lone parents have a pre-payment electricity meter, as do 36% of couples. So inadequate resources take the form of rationing electricity usage, rather than non-payment. Table 9 describes the average amounts of arrears and the frequency of arrears per household. One reason for this startling level of arrears is that delays in payments of these bills do not include interest charges and, whilst persistent non-payment may lead to cut-off or excess charges (such as reconnection charges), it is presumably possible to utilise rotation of arrears to provide short-term and effectively interest-free loans. We show some evidence of this ‘arrears rotation’ below.

Table 8
Percentage of Families who were behind with their Household Bills

	Home Owning Couples	Tenant Couples	Home Owning Singles	Tenant Singles	Total*
Has a prepayment electricity meter	17.30	61.63	15.35	64.70	43.01
Currently behind with at least one utility bill:	19.16	46.25	20.75	53.42	37.77
<i>Unable to repay the following bills:</i>					
Electricity Bill	4.08	7.04	5.04	9.58	6.86
Gas Bill	5.42	14.92	7.19	18.99	12.43
Other Fuel Bills	0.15	0.19	0.00	0.55	0.28
Council Tax	12.47	24.20	11.51	21.29	17.84
Insurance Policies	0.97	1.13	2.16	0.55	1.04
Telephone Bills	5.57	16.70	8.75	19.70	13.43
Television/Video					
Rental or HP	0.45	3.10	1.56	4.49	2.58
Other HP Payments	2.00	6.19	3.12	7.01	4.78
Water Rates	6.53	17.45	7.43	23.86	14.93
Number of Utility Debts:					
0	80.40	53.47	75.78	46.31	61.85
1	8.69	21.11	11.87	23.48	17.23
≥2	10.47	22.14	11.88	29.94	17.54
<i>Base</i>	<i>1347</i>	<i>1066</i>	<i>834</i>	<i>1827</i>	<i>5397</i>

Notes: * See Table 1.

Finally, Table 9 illustrates the average magnitude of utility debts for different household types. Debts on hire purchase are typically largest, but less prevalent than bills on 'basic' utilities such as gas, water, council tax and telephones.

Table 9
Average amount by which households were behind with their bills (debts > 0)

	Home Owning Couples	Tenant Couples	Home Owning Singles	Tenant Singles	Total	<i>Base</i>
Electricity	167.89	177.58	120.78	191.82	176.92	341
Gas	163.51	172.82	153.93	181.36	173.92	622
Other Fuel Bills	150.00	20.00	-	58.60	62.57	14
Council Tax	277.19	357.29	266.60	297.57	309.70	827
Insurance Policies	176.50	71.00	338.46	84.20	174.95	43
Telephone Bills	130.84	103.85	131.76	115.32	116.16	708
Television/Video	51.83	92.03	171.69	151.04	132.05	133
Rental or HP						
Other HP Payments	493.79	1057.05	1460.38	839.06	931.30	246
Water Rates	212.21	246.88	203.13	209.81	218.20	713

Notes: * See Table 1.

3. Explaining family credit arrangements and arrears of debt

The previous analysis shows that low income families utilise a diversity of institutional arrangements to obtain credit – both formal and informal arrangements. These arrangements differ systematically by family types, especially between homeowners and tenants and, therefore, by composition between couples with children and single parents. The paper has shown that arrears are prevalent and are not revealed simply by examining 'traditional' sources such as credit cards and bank loans. They include diverse sources such as arrears on catalogue and mail order payments, defaults on informal loans and, in the short run at least, non-payment of utility bills.

In describing the acquisition of debt, economists sometime think of a 'hierarchy' of credit arrangements, ordered by ease of access or by costs of borrowing, such as the current and prospective interest rate. The 'rational' borrower would therefore choose the debt portfolio that minimised the expected cost of financing the target level of debt. However, it is not clear that households always follow this model. 'Standard' models of household behaviour, ordering arrangements by cost of finance, would not, for example, predict borrowing on credit cards at high interest rates when the household has unused

automatic bank overdraft facilities available at a lower rate or could refinance its debts. That scope for such arbitrage exists is indicated by the plethora of advertisements that encourage households to refinance or roll their debts into a single, lower, regular payment. Yet households continue to borrow and lend at disparate interest rates, either because their utility functions are different from the standard model of utility maximisation (Laibson *et al*, 2003, Haliassos and Reiter, 2003), or because it is convenient to arrange household borrowing in other ways, or to avoid reputation effects.

For low income families, such considerations of ‘rational’ financial strategy may be impractical, especially if access to specific credit arrangements is constrained by a deficiency of collateral resources (such as not owning a house) or lack of access points (such as not having a bank account). Arrears on debt, in particular, might be regarded not so much as a consequence of an explicit financial strategy but as the outcome of past shocks, such as loss of job, changes in family composition etc. But for families that are temporarily or persistently having difficulty in paying off debts, it might be optimal to arrange affairs in a specific manner – for example to run up arrears on utilities and housing, whatever the potentially disastrous consequences, and then attempt to negotiate extensions and grace periods with (perhaps) more sympathetic officials than those associated with repossessions and non-repayments of other forms of household debt, such as bank managers or finance companies. It is hard to get firm evidence on this, because much of the existing sociological literature assumes that such families are ‘financially excluded’ and/or in a position of extreme financial stress, and therefore not in a position to adopt any ‘strategy’ for managing finances.¹⁵

One simple piece of information is to examine the *correlation* of different types of debt. This not only provides further evidence on the extent of arrears, but also permits the researcher to see whether there are significant ‘matches’ across types of credit arrangement, debt and default. Table 10 therefore describes the associations of debt arrears by broad category, differentiating low income couples with children (in **bold**) from lone parents (*in italics*). The diagonal simply states the total fraction of each category with arrears of a particular type – so in the first cell, 3.2% of low income couples with children and 4.4% of lone parents owe money for paying off loans from financial

¹⁵ However, these qualitative studies do suggest that such low income families attempt to adopt the ‘accountant’/‘shopper’ dichotomy (Haliassos and Reiter, 2003) by keeping separate accounts (even in cash terms), distinguishing between ‘regular’ expenditure commitments and windfalls – see Economic and Social Research Council (2002).

institutions. As we have already seen, the most pervasive debts arise from non-payment of utility bills, and housing arrears.

Reading across to the second cell, 0.4% of low income couples are in arrears both on loans from financial institutions and have unpaid arrears in informal loans from their family. To illustrate these associations between arrears, reading right across to the last cell, a large proportion of low income couples (87.5%) that owe money to financial institutions also are in arrears on their utility bills¹⁶. There is also a strong association between housing arrears and utility arrears in that almost three-quarters of the families who are in rent and mortgage arrears also owe money on their utility bills. Bearing in mind the prevalence of pre-payment electricity meters, especially among renting low income families, this is a striking figure.

Table 10
Associations of debt and arrears by category

Arrears by % of sample of couples with children					
<i>Arrears by % of sample of lone parents</i>					
	Loans from finance	Loans from family	Cards & catalogues	Housing arrears	Utilities' arrears
Loans from finance	3.2 <i>4.4</i>	0.4	0.8	1.3	2.8
Loans from family	<i>0.4</i>	3.8 <i>4.4</i>	0.7	0.9	2.4
Cards & catalogues	<i>1.0</i>	<i>0.9</i>	4.7 <i>6.6</i>	1.1	3.6
Housing arrears	<i>1.1</i>	<i>1.02</i>	<i>1.4</i>	13.4 <i>13.8</i>	9.6
Utilities' arrears	<i>3.9</i>	<i>3.2</i>	<i>5.3</i>	<i>9.7</i>	31.5 <i>43.4</i>

4. Regression analysis of household arrears

Having examined the pattern of credit arrangements and arrears on debt, it is useful to combine the arrears data in order to examine how the aggregate level of arrears is associated with different household characteristics. The appropriate statistical model is the *Tobit* model, since over half of families (55%) report no arrears.¹⁷ Since there is

¹⁶ $2.8/3.2=0.875$

¹⁷ Other candidate models include a simple probit/logit of whether the household has arrears, or a count model of number of arrears (the latter is used in Bridges and Disney, 2002). If we believe that

undoubtedly measurement error in aggregated reported arrears, we trim the top 5% of positive reported arrears where the reported value exceeds £3000.¹⁸

Table 11 reports the Tobit estimates. The results for couples with children and single parents tell a similar story. First, home ownership in 1999 is associated with a lower level of arrears, for both couples with children and single parents (the coefficients can be interpreted as absolute numbers – that is, homeownership increases the possibility of collateralised lending, homeowners are likely to accumulate greater arrears than tenants. Arrears arise, largely, where families have lower incomes, and because tenants are typically poorer than homeowners (see Table 1).

Older respondents (and partner’s ages among couples) are associated with lower amounts of arrears. However every extra child raises the average amount of arrears by £57 for couples and £75 for single parent (it is important to reiterate that the majority of families in the sample have no arrears). In terms of family income, having access to housing and disability benefits tend to reduce arrears although ‘other benefits’ are associated with an increase. There is evidence, particularly among single parents, that working increases average arrears – presumably because work is associated with greater access to credit arrangements and/or because work involves expenses. However, as expected, earnings, conditional on work, significantly reduce arrears (partner’s wage is dominant for couples with children because the partner is, typically, the man). Higher levels of qualifications, which can be regarded as general proxies for lifetime or permanent income, are normally associated with lower arrears.

access to credit is an additional constraint, then we should model the probability of having arrears and the magnitude of those arrears in a simultaneous model.

¹⁸ Only 39 families are involved, and this trimming makes no significant difference to the coefficient magnitudes or standard errors. Results with no trimming are available from the authors on request.

Table 11
Determinants of Household Arrears (Tobit Model)

<i>Variable</i>	Couples with children		Lone parents	
	<i>Coefficient</i>	<i>t-ratio</i>	<i>Coefficient</i>	<i>t-ratio</i>
Home Owner	-527.78*	8.54	-220.27*	3.63
White	83.98	1.13	-175.14	2.97
Age	-9.77*	2.07	-9.67*	4.41
Partner's Age	-7.58†	1.88	-	-
On housing benefit	-267.33*	3.57	108.63*	1.97
On Disability Benefit	-167.07*	2.58	-70.90	1.10
On other benefit	213.15*	3.54	88.12	1.52
Working	17.16	0.20	199.86*	3.82
Partner Working	103.09	1.05	-	-
Married	45.97	0.78	-	-
Number of children	56.77*	2.65	74.81*	4.05
Highest qual: GCSE A-C	22.33	0.42	-95.82*	2.46
Highest qual: A-Level	-293.22*	2.86	-198.55*	2.50
Highest qual: Degree	-181.83†	1.63	28.74	0.32
Wage	-0.81	1.06	-1.34*	3.52
Partner's Wage	-1.74*	3.54	-	-
Constant	473.64*	2.68	212.34*	1.73
Log-Likelihood	-6517.57		-10306.927	
	$\chi^2 (16) = 278.63$		$\chi^2 (12) = 223.69$	
Number of Observations	2030		2460	

* indicates significance at 5% level; † indicates significance at 10% level.

The conclusion to be drawn from this analysis is that the probability of incurring arrears on debt (subject to the repeated *proviso* that the majority of the sample have no arrears) is related to low incomes, which is in turn associated with other characteristics such as ethnicity, and tenancy rather than home ownership. Life cycle variables (age, education) suggest, as expected that older and more educated family heads are less likely to be in arrears. The age variable, in particular, suggests that arrears may be associated with a particular point of the life cycle. We find little evidence that homeownership or higher incomes induce defaults by triggering access to credit arrangements. The one counteracting result to this is the positive coefficient on the variable ‘work’ for single parents, when we hold earnings constant.

5. Persistence of arrears

In this section, we analyse some simple dynamics, exploiting the panel aspect of SOLIF/FACS. Specifically, we examine the persistence of reported arrears from year to year for those individuals who respond to the questions in 1999, 2000 and 2001. The responses of those individuals who report arrears in 1999 are tracked over 2000 and 2001.

What do we expect to find from this analysis? We might find evidence that indebtedness arising from credit-financed spending cumulates over time as families borrow more in order to cover existing repayments. The practical limit on such persistence in indebtedness, especially in relation to credit arrangements and borrowing from financial institutions, is that access to further credit is curtailed by lenders (e.g. cancelling of credit cards). One possible response to imposed credit constraints is that individuals switch to new lenders, although credit scoring will limit this strategy if there is evidence of past unpaid debts. Credit from sources outside the activities of credit bureaux, such as money lending, may therefore exhibit greater persistence since the credit history of individuals may not be automatically monitored by lenders outside the formal sector of prime lenders and interest charges may be significantly higher.

The other possibility, suggested in the previous discussion, is that indebtedness persists where families are capable of renegotiating debt – such as with local authorities, mortgage providers and utilities. Ultimately, there will be constraints here to default persistence (for example, repossession, disconnection and court summonses) but families may be able to rotate their arrears in a way to avoid these ultimate sanctions, or to

negotiate staggered repayments of debts and temporary relief from due payments. Overall, however, persistence rates for types of arrears might be expected to differ significantly across credit arrangements.

Figure 1a and 1b examines default persistence for, respectively, couples with children and lone parents. In each case, the proportion of those in arrears in each category of credit arrangement in 1999 are identified (as in previous tables), and the proportion of the 1999 families reporting arrears in subsequent years are plotted. They are ranked from highest to lowest positive persistence for couples with children, with the same ordering of arrangements for lone parents (which have a slightly different ranking in persistence rates). For some categories of arrears, there is approximately zero persistence (<1%). For couples with children, such categories include credit, store and charge cards, loans from employers and money lenders, and HP on television and video rental. For lone parents, there is some evidence of one period persistence in arrears for two of these categories – credit cards and money lenders, although the persistence does not extend for two years (i.e. to 2001).

The figures suggest that persistence is greatest in dealings with local authorities – through levy of council tax and possibly local authority renting, along with mortgage lenders and water utilities (who face legal limitations on their ability to cut off non-payers). These are all categories of credit arrangement where families may engage in some negotiation over payment of arrears and where interest is typically not charged on overdue amounts.

The next category is largely utility bills, where there is lower, but significant, persistence. There is also some evidence of rotation of arrears on utility bills: that is, switching between providers of different utilities in non-payment. For example, of the 17% of couples with children who reported one or more utility arrears in 1999, 13% reported at least one arrear in 2000 and 10% in 2001. For single parents, the proportions are respectively 20%, 17% and 21%. So while there is not much persistence in arrears with any one utility provider, there is much greater persistence in overall utility arrears.

Other categories exhibit even lower persistence. There is some evidence of persistent non-payment of loans from finance companies and from relatives, and also for catalogue payments. Persistence in arrears from moneylenders, and from most forms of credit arrangements (credit cards, store cards etc) is almost non-existent among couples and barely more prevalent among lone parents. The conclusion to draw from this

analysis is that low income families typically exhibit persistence in arrears with local authorities and utilities. There is very little evidence of cumulative problems of debt with financial institutions and credit providers – whether high street institutions or informal lenders. Arrears on local authority and utility payments are largely interest free and terminal provisions (such as repossession or withdrawal of service) can be avoided by ‘rotation of debts’ across providers of household services. Only, perhaps, in loans from finance companies is there any evidence of a cumulative persistence of non-payment. This may of course reflect credit curtailments (loss of borrowing rights and adverse credit ratings), but it also makes sense for the income-constrained household to utilise effective interest-free periods of credit from other sources than to persist in incurring significant interest-bearing arrears with financial institutions. Overall, however, even if arrears are not significantly persistent, such households are always vulnerable to subsequent adverse shocks (loss of job, or changes in family composition) that make any substantial arrears a risky strategy.

Figure 1a
Couples with Children: Persistence of Arrears
by Credit Type or Household Bill (1999=100%)

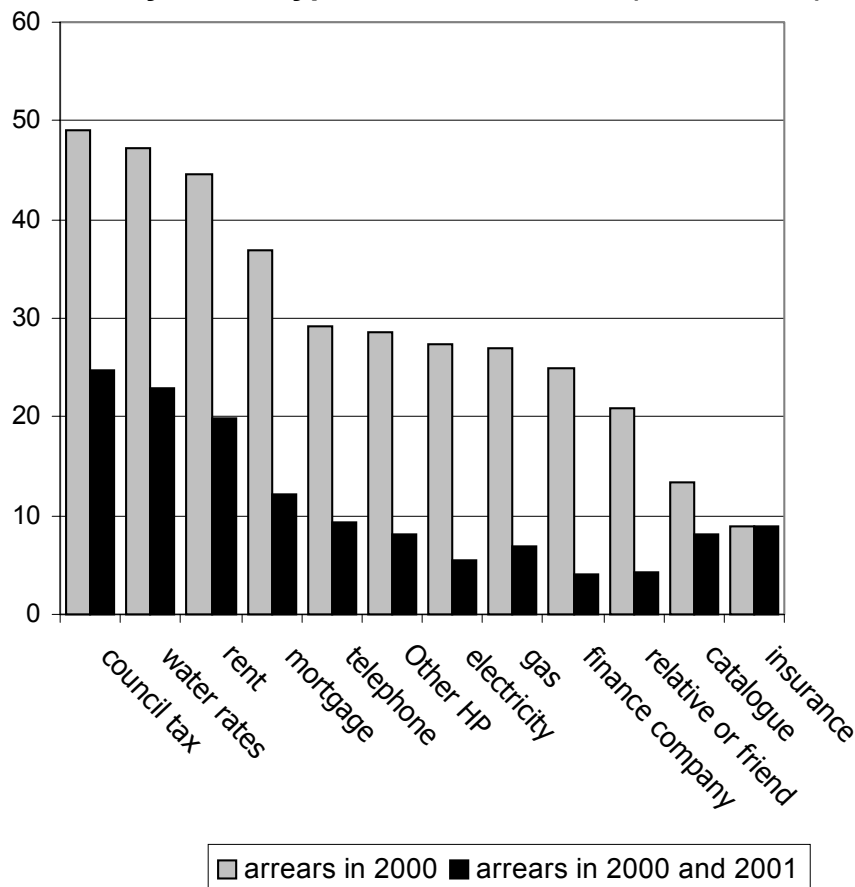
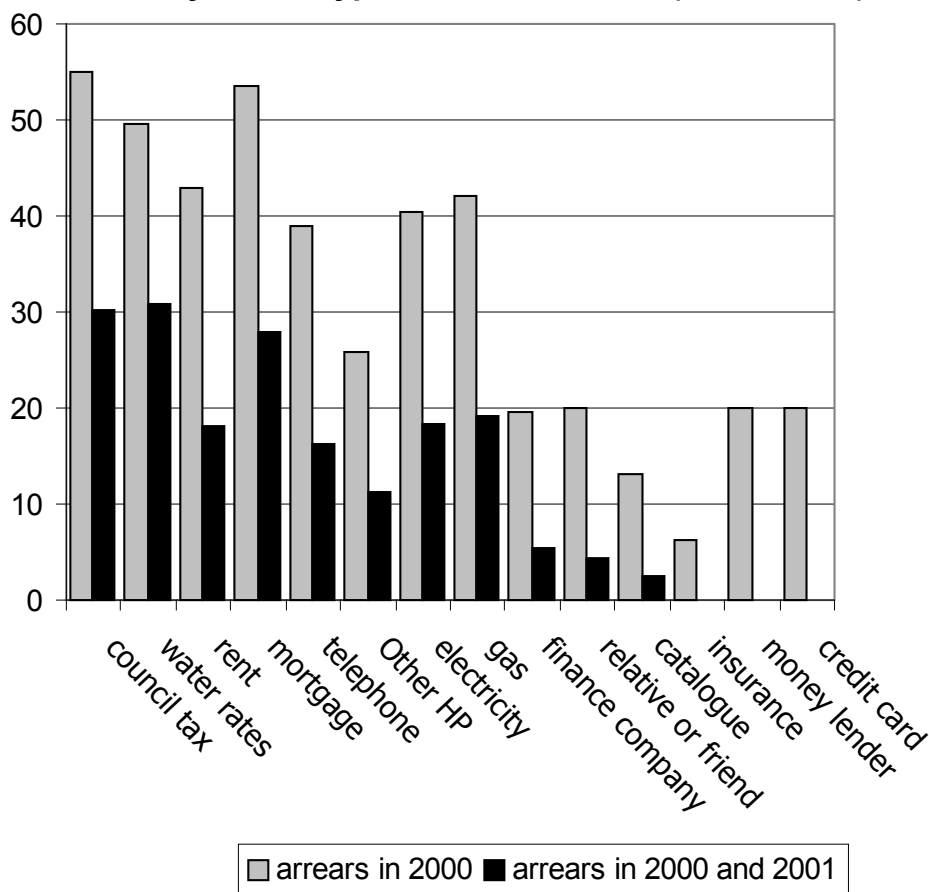


Figure 1b
Lone Parents: Persistence of Arrears
by Credit Type or Household Bill (1999=100%)



6. Conclusion

This paper represents the first attempt, to our knowledge, to obtain quantitative results from household data to examine the credit arrangements and patterns of default on debt among low income families. The analysis can be set in the context of rising concern over consumer debt levels in the United Kingdom, with the presumption that low income families may be most 'at risk' of persistence unsustainable indebtedness arising from excess credit. Such risks could in principle arise for two, disparate, reasons. On the one hand, low income families might obtain excessive credit through conventional channels such as high street lenders and through other forms of consumer credit (such as store cards), or, on the other hand, families are denied access to such

credit arrangements and are forced into a secondary market with high interest rates and stringent repayment conditions. Our study has four main conclusions:

i) Most low income families utilise several credit arrangements – they are not simply excluded from the credit market. However there are sharp differences in types of credit between homeowners and tenants in the sample. Since lone parents are more likely to be tenants than couples with children, this difference also carries over into household types. Low income homeowners typically use credit arrangements that are comparable with the rest of the population – such as credit cards and bank loans and overdrafts. Low income tenants rely disproportionately on loans from family and friends and from finance companies. Non-payment of rent and utility bills is pervasive in the short run among tenants. However, use of catalogue and mail order purchases is very common among both tenants and homeowners in the sample. The results strongly suggest that home ownership and use of bank accounts are the ‘gateway’ to many types of credit arrangements.

ii) Tenants are much more likely to be arrears on debt than homeowners in almost all dimensions except informal loans. This arises largely because tenants have lower incomes than homeowners. For example, single parents, who are disproportionately renters, are less likely to be working than at least one member of a couple with children.

Arrears on debt therefore arise largely as a result of low incomes, rather than from ‘irresponsible’ lending to homeowners.

ii) It is hard to discern any pattern of a ‘hierarchy of credit arrangements’ among these families (but behaviour is difficult to explain across all households within a ‘rational’ economic model of minimising borrowing costs given the pervasive phenomenon of borrowing on credit cards). Nevertheless, there is some evidence that these families minimise on borrowing costs by defaulting on family loans and by using utility non-payments and rent arrears in the short run as means of deferring expenditures. There is some evidence of ‘arrears rotation’ in utility bills. Nevertheless, within this general setting, there is a hard core of families with apparently serious problems of high levels of arrears and indebtedness.

iii) We find no strong evidence of persistence in arrears of debts and household bills for individual households from period to period. Persistence is strongest in arrears on payments to local authority and to mortgage providers, where there is effectively no interest charged on implicit debts and where lenders may be open to renegotiation of payment profiles. There is much less persistence in arrears on individual utility bills,

although there is some evidence of ‘rotation’ – that is, varying the arrears from bill to bill across periods. There is very little evidence of persistent arrears to financial institutions and credit companies, although curtailment of credit and subsequent adverse credit scores may contribute to this lack of persistence in arrears.

Is there therefore a major ‘debt problem’ among low income families? We find evidence of significant arrears among a sub-set of families, but most arrears are not strongly persistent. In general, the source of substantial arrears is low incomes and economic inactivity of the family, rather than excess lending to those with collateral in the sample, such as homeowners. Whether debt becomes a long run ‘problem’ for such families therefore depends on whether adverse economic characteristics such as single parenthood, economic inactivity, low wages and so on are persistent. This question cannot be addressed by a ‘snapshot’ at a point in time. The natural next step to the research will therefore be to focus on exploiting the panel aspects of the data to examine whether changes in status (in economic activity, home ownership, family structure etc.) are associated with changes in the use of credit arrangements and in the pattern of arrears of debt.

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Appendix

Debt Questions – SOLIF (1999)

1. Sometimes families are not able to pay every bill when it falls due. May I ask, are you up-to-date with the bills on this card, or are you behind with any of them?

Electricity bill
Gas bill
Other fuel bills like coal or oil
Council tax
Insurance policies
Telephone bills
Television/video or HP
Other HP payments
Water rates

2. How much do you owe for each bill (above)?
3. Over the past few years a lot of different ways of buying things have been introduced and many people use them. Do you use any of the different ways of buying things listed on this card?

Credit cards (like Access, Visa etc)
Charge cards (like American Express, Diners Club)
Shop or store cards (like Marks and Spencer, John Lewis etc)
Catalogues/mail order schemes
None of these.

4. Are you at the moment able to manage the repayments on the above cards. I mean, to meet the minimum amount you have to repay?
5. How much are you unable to repay at the moment?
6. There are also more and more ways of borrowing money these days. Over the past 12 months, have you used any of these ways to borrow money?

Bank overdraft
Fixed term loan from the Bank or Building Society
Loan from a finance company
Loan from a moneylender or 'tally man'
Loan from a friend or relative
Loan, or advance on wages, from your employer
None of these.

7. Have you been able to keep up with the repayments for the above loans, or are you getting behind?

8. How much do you owe on these overdue payments?
9. How often would you say you have been worried about money during the last few weeks?
10. Is your rent paid up to date at the moment, or do you have some rent arrears that will have to be paid?
11. How much are your rent arrears at the moment?
12. Enter amount of rent arrears to the nearest £.
13. Enter number of weeks in arrears.
14. Enter number of months in arrears.
15. And may I just check, are you up to date with your loan or mortgage payments or are you now behind with your loan or mortgage?
16. How much are your mortgage or loan arrears at the moment?
17. Enter amount of mortgage or loan which is in arrears.
18. Enter number of weeks in arrears.
19. Enter number of months in arrears.