Helping over-indebted consumers

Analytical supplement

Contents

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Introduction

1   This analytical supplement accompanies the publication of the National Audit Office value for money report, *Helping Over-Indebted Consumer*, published on 4 February 2010 and available on our website www.nao.org.uk/publications. The supplement covers the results of an NAO survey of over-indebted consumers into consumers' debt situation, attitudes, and behaviour. It may give useful data and insights for those who want or need to understand the nature of over-indebtedness, in particular in designing services around user needs.

2   This supplement includes:

- detailed description of the methodology used for the survey;

- results and analysis of the survey; and

- description of the statistical methods used (Appendix).

Collection of data on Over-Indebtedness

3   The survey was designed to examine the demographics, situation, behaviour and attitudes of over-indebted consumers from a nationally representative sample of the UK population. There is relatively little publicly available data on the current demographics and situation of over-indebted consumers, or their behaviour and attitudes.

Indicators of Over-Indebtedness

4   There are two types of indicator used to measure over-indebtedness, objective and subjective. An objective indicator is based on a measurable quantity, such as the number of credit commitments an individual has. A subjective indicator is based on a more subjective judgement, such as individuals' perceptions of their ability to manage their debt.

5   Our survey was based on those individuals who self identified as over-indebted, a subjective indicator, for two main reasons. Firstly, we wanted to capture both people who were already over-indebted, as well as those who considered they were at risk of becoming so (those that are struggling to keep up with their bills and credit commitments). Secondly, we wanted to capture a range of people who are likely to use support services, and our subjective indicator is more useful in identifying those likely to seek help than an objective indicator, because they consider that they are already struggling.

Sampling Over-Indebted Consumers

6   We aimed for an achieved sample of 1250 respondents. Respondents were screened at the beginning of the interview, and only those who were falling behind with some or all of their payments, or keeping up but struggling were interviewed. Respondents were found using a random digit dialling method.

Questionnaire Development & Piloting

7   The survey questionnaire was developed following a review of the existing literature and research on over-indebtedness using library and web-based materials. It focused on the attitudes and behaviours of over-indebted consumers, but also included questions asking respondents about their debt situation as well as social and demographic questions.

8   The questionnaire was developed in collaboration with GFK-NOP who then converted the questionnaire into a Computer Aided Telephone Interview script. GFK-NOP piloted the questionnaire with respondents previously screened by the National Audit Office using an omnibus survey run by ICM.

9 The piloting exercise identified questions that interviewees found unclear. Consequently, some questions were redrafted and others were deleted. The questionnaire came out at an average of 20 minutes which we considered an acceptable length.

Data Collection

10 Respondents were asked two screening questions. If a respondent was defined as over-indebted they would go on to complete the rest of the survey.

11 We were aware of the limitations of telephone based interviewing. Our primary concern was that telephone surveys would inevitably bias against households without telephones or with unlisted numbers. We made an attempt to off-set this risk by introducing mobile phone numbers for 20 per cent of the sample.

12 The interviewers that were used to conduct the survey did this in a sensitive manner. Respondents were reassured of the anonymity of their responses, and that taking part would in no way effect their situation. In addition, at the end of the interview, respondents were offered some phone numbers where they might receive more help and advice about their debt situation.

Response

13 Full fieldwork began in July 2009 and ended at the beginning of September 2009. 1,361 interviews were achieved giving us an official response rate of 6 per cent. There are a number of factors that have contributed to this low response rate. Firstly, it reflects the sensitivity associated with a survey on over-indebtedness. In addition, during the time of fieldwork, there were low response rates from telephone surveys across the board due to external influences. And finally, it is likely that some people that were not in debt were not asked the relevant screening questions, because they decided not to take part immediately after being told what the survey was about. In such cases, the person would be recorded as a "refusal" rather than as someone who was not eligible for the survey, and may have artificially increased the rate of non-response.

Analysis and Results

Cluster Analysis

14   We identified four distinct clusters of over-indebted consumers from our survey (**Figure 1**), each demonstrating different behaviours. The cluster analysis was based on three characteristics: the extent to which consumers feel they are currently managing with their credit commitments and household bills, the number of bills or credit commitments that the individual has fallen behind on, and the total number of credit commitments the individual has.

Figure 1

The four clusters of behaviour of those who feel they are struggling with debt

Worried well: this group are not falling behind and do not have a high number of commitments, but sometimes struggle to keep up with repayments (49%).

Over-Indebted: this group are not badly indebted, but are falling behind on a small number of bills (22%).

Worried and at risk: this group are currently keeping up, but they are always struggling to meet their repayments (14%).

Highly Over-Indebted: this group of consumers are the worst hit. They have the largest number of commitments, and are falling behind the most (15%).

Source: National Audit Office survey of over-indebted consumers

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15   The clusters are useful because they display different characteristics and give information on the particular problems that each group has. For example, the "worried well" have the highest level of educational attainment, suggesting the greatest ability to self help. A greater understanding of the population could allow an improved ability to target resources on those areas which will have the greatest impact. The characteristics, behaviours and attitudes of the four clusters were explored to highlight where significant differences arose.

16   We found that in many cases the Worried well and the Worried and at risk shared similar characteristics. Where this was the case we grouped these clusters into one category that we called 'worriers'. Similarly the Over-indebted and the Highly Over-Indebted shared similar characteristics. Where this was the case we grouped these clusters into one category that we called 'badly hit'.

Socio-Demographic Characteristics of Clusters

Figure 2
Table comparing socio-demographic characteristics across clusters

Question	Description	Significance
Is there a relationship between age and the clusters identified?	The badly hit are more likely to be in the younger age group (30%) than the worriers (14%).	***
Is there a relationship between education qualifications obtained and the clusters identified?	Worriers (63%) are more likely to have higher educational qualifications than the badly hit (37%).	***
Is there a relationship between housing tenure and the clusters identified?	Those who are highly over-indebted are more likely to live in social housing (45%) than both the over-indebted (27%) and the worriers (15%).	***
	Those who are highly over-indebted are less likely to own a house outright (5%) than both the over indebted (15%) and the worriers (32%).	***
Is there a relationship between income and the clusters identified?	Those who are badly hit are more likely to have an income of less than £10,000 to £15,000 (57%) than the worriers (44%).	***
	The worriers are more likely to have an income above £40,000 (15%) compared to the badly hit (8%).	***
Is there a relationship between the number of financially dependent children respondents have and the clusters identified?	The worriers are more likely to have no financially dependent children (73%) than those who are badly hit (52%).	***
Is there a relationship between working status and the clusters identified?	Those who are highly over-indebted are more likely to be unemployed or not be able to work because of a long-term sickness or disability (32%) than the over-indebted (20%), the worried and at risk (19%), and the worried well (10%).	***

Source: National Audit Office survey of over-indebted consumers

17 The badly hit tend to be younger, whilst worriers tend to be older. The badly hit are, more likely to be on a lower income. Whilst the highly over-indebted are the most vulnerable as they are more likely to be unemployed or unable to work because of a long-term sickness or disability, and most likely to be living in social housing. The badly hit are also more likely to have financially dependent children and therefore have financial dependents. Worriers are more likely to have a higher level of educational attainment than the badly hit.

Debt Situation of Different Clusters

Figure 3
Table comparing the debt situation across the clusters

Question	Description	Significance
How many months missed payments	The highly over-indebted (53%) are more likely to be in arrears of 3 months or more than the other clusters (32%).	***
Trigger events - less money in, or more money out	The worriers are more likely to have experienced none of the trigger events (17%) than the badly hit (9%).	***

Source: National Audit Office survey of over-indebted consumers

18 The worriers are not missing any payments, however there is a difference between the highly over-indebted and the over-indebted. The over-indebted are more likely to be in one month of arrears, whilst the highly over-indebted are more likely to be in arrears of three months or more. This suggests that the highly over-indebted are more likely to be in a situation of structural over-indebtedness rather than a temporary one.

19 Previous research has shown that people are likely to become over-indebted because of trigger events which cause either less money to come in to a household, or more money to go out. Therefore, decreasing the ability of the consumer to pay for their bills and other credit commitments. The worriers were more likely to not have experienced any trigger events than the badly hit, but they were still worrying about their financial situation.

20 There were no significant differences between the types of trigger events that respondents experienced across the clusters. The types of trigger events that respondents experienced are summarised below.

Figure 4
Table showing the reasons why consumers have less money coming in

Reason why less money came in	Worried Well (%)	Over-Indebted (%)	Worried and at Risk (%)	Highly Over-Indebted (%)	Total (%)
loss or cut in main source of income	60	66	57	52	60
change in family circumstances	8	10	11	9	9
change in financial circumstances	22	19	21	27	22
other	4	4	6	7	5
don't know	6	2	5	5	5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Audit Office survey of over-indebted consumers

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Figure 5
Table showing the reasons why more money is going out

Reason why more money going out	Worried Well (%)	Over-Indebted (%)	Worried and at Risk (%)	Highly Over-Indebted (%)	Total (%)
change in family circumstances	2	6	4	2	3
change in finances	81	78	84	81	81
big expense	6	4	1	5	5
nothing in particular/ other	11	11	11	12	11
don't know/no answer/ not stated	Below 1	1	0	0	Below 1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Audit Office survey of over-indebted consumers

NOTE
The total may be sum to 100 because of rounding.

How Different Clusters Differ in Attitudes

21   Respondents were asked if they agree or disagree with seven statements. Six of these were about the respondents' feelings and attitudes towards their financial situation, whilst one of them was asking about the respondents' knowledge as to whether they knew where to get advice from if they wanted it. We used principal component to group together attitudes that are interrelated and this analysis produced three components as follows:

Figure 6
Principal component analysis of attitudes to debt situation

Component	Attitudes
In denial	There is nothing you can do to help yourself.
	Things will just get better by itself overtime.
Given up	There is nothing you can do to make the situation better.
	Prefer not to think about the situation.
Advice Seekers	Would like to talk to somebody about the situation.
	Advice will help the situation.

Source: National Audit Office survey of over-indebted consumers

22   This suggests that the badly hit are more likely to be in denial and to have given up on their situation than the worriers. However, at the same time it would seem that they are most likely to be advice seekers. Those who are highly over indebted (62%), and therefore the most vulnerable, are less likely to know where to get the help they need than the worried well (74%), who are the least vulnerable.

Figure 7
How factors compare across the clusters

Question	Description	Significance
In denial	11% of worriers are less likely to be in denial compared to 5% of the badly hit	***
Given up	11% of the badly are more likely to have given up compared to 3% of the worriers.	***
Advice seekers	20% of the badly hit are more likely to seek advice compared with only 7% of the worriers.	***

Source: National Audit Office survey of over-indebted consumers

Figure 8

How behaviours differ across the clusters

Question	Description	Significance
Where have they already received advice from?	The badly hit are more likely to have gone to a free debt advice service (22%) than the worriers (6%). Whilst the worriers are more likely to have gone to a fee charging professional (17%) than the badly hit (10%).	***
How do they prefer to be made aware about advice services?	70% of badly hit would prefer to be made aware of advice by having information on bills or statements, compared with 63% of worriers.	**
	41% of the badly hit would prefer to be made aware of advice by phone calls from companies that they owe money to compared with 31% of worriers.	***
	70% of the badly hit would prefer to be made aware of advice from Job centre plus compared with 59% of worriers.	***
Who do they trust for money advice?	20% of the badly hit trust debt advice providers for money advice compared with 12% of worriers.	***
	16% of worriers trust their bank or building society for money advice compared with 7% of the badly hit.	***
What consequences do they think there are of not making payments?	15% of the badly hit worry that the consequences of not being able to make payments are that bailiffs will come to their home, compared with 7% of worriers	***
	13% of the badly hit are worried about getting a court order compared with 5% of worriers.	***
What channel are they least likely to want to take up?	16% of the badly hit are least likely to want to receive face to face advice compared with 7% of worriers.	
	17% of highly over indebted are least likely to want to receive telephone advice service compared with 23% of other clusters.	*

Source: National Audit Office survey of over-indebted consumers

How Different Clusters Behave

23   The badly hit are more likely to have received advice from free to consumer debt advisors, whilst worriers are more likely to have got advice from a fee charging professionals. The badly hit have stronger preferences about how to be made aware of advice services compared with the worriers, with there being a significant difference for 'information on bills or statements', 'phone calls from the creditors', and 'job centre plus'. The latter may relate to the fact that the badly hit are more likely to be unemployed and therefore more likely to be in a job centre plus than the worriers. The badly hit are more likely to trust debt advisers than the worriers, whilst the worriers are more likely to trust their bank. The badly hit worry about the consequences more than the worriers especially in terms of worry that creditors will send bailiffs round to their homes or that they will receive a court order.

24   There is no significant difference between which channels of advice the different clusters would take up, however there is a difference between the clusters as to which channels they would not take up. The badly hit are less likely than worriers to want to take up face to face advice and telephone advice.

Logistic Regression

We put eight independent variables into the model and identified six variables that were significant in predicting the outcome. Overall, the model correctly classifies 71% of the consumers to fall in category of worriers or badly hit.

Figure 9

Results of logistic regression

People in this group…	… were more/less likely to be over-indebted	… than this group
Younger people:		
● aged 16-34	3 x more likely	Old people aged 55+
● aged 35-54	2 x more likely	Old people aged 55+
People with an income of less than £10,000 to £15,000	2 x more likely	People with an income of £40,000 or more
People with no financially dependent children	Less likely	People with 4-6 financially dependent children
People who live in:		
● social rented housing	3 x more likely	People who own their home
● private rented housing	4 x more likely	People who own their home
People who are unemployed or who can't work	1.5 x more likely	People who are in employment
People who have given up on their situation – they strongly agree that there is nothing that will make their situation better and they do not want to think about their situation	3 x more likely	People who have not given up on their situation – they disagree that there is nothing that will make their situation better and that they do not want to think about their situation.

Source: National Audit Office survey of over-indebted consumers

Appendix

A summary of the statistical methods for consumer indebtedness survey

Cluster Analysis

1   Cluster analysis is a statistical technique which seeks to identify groups of people with similar behaviour or characteristics.

2   We used the Statistical Package for Social Scientist (SPSS) two-step procedure to group respondents with similar characteristics. This technique is appropriate for handling large data files with mixture of continuous and categorical variables.

3   In our consumer indebtedness survey, we obtained 1362 responses and the three variables we selected for the clustering were categorical in nature. The three variables are listed below as follows:

- The extent to which consumers feel they are currently managing with their credit commitments and household bills

- The number of bills or credit commitments that the individual has fallen behind on

- The total number of credit commitments the individual has

4   With 1362 responses and three categorical variables, the two step procedure grouped them into four clusters. These four clusters together made up 99.9 per cent (1361) of the total responses. One case was excluded from the analysis due to missing data. The table below shows that the largest cluster has 49 per cent of the clustered cases and the smallest has 14 per cent.

Cluster	Percentage of responses	Variables	Name assigned to cluster
1	49	Sometimes struggle to keep up with repayments and not in arrears.	Worried well
2	22	Falling behind on a small number of bills.	Over-indebted
3	14	Always struggle to meet their repayment but not in arrears.	Worried and at risk
4	15	Largest number of commitments and are falling behind on most bills.	Highly over-indebtedness

Principal Component Analysis (PAC)

5 We have seven attitudinal questions with a standard five-point strongly agree to strongly disagree scale. We used principal component analysis (PAC) to group together attitudinal variables that are interrelated. This will reduce the variables to a smaller set while retaining as much of the original information as possible.

6 We used the Varimax rotation in PAC and obtained three components. The Varimax rotation worked on loading a smaller number of highly correlated variables onto each component resulting in more interpretable components.

7 For each component, we selected variables with coefficients above 0.5. We assigned name to each component as follows

Component name	Survey variables	Coefficient
Advise seekers	Would benefit from talking to someone about your financial situation.	0.85
	If you get the right advice you would be able to manage your financial difficulties.	0.87
Given up	There were missing payments you did not think you could make situation better.	0.71
	When you realised you were missing payments you did not want to think about it.	0.68
In denial	There is nothing you can do to help yourself out of financial situation.	0.71
	You thought that your situation would get better by itself overtime.	0.74

8 We then worked out the mean value for each component and used test of proportions to examine for any significant results between the four clusters.

Logistic regression

9 We used logistic regression model to examine the likelihood of being indebted (this is our outcome variable) using a set of independent variables. Logistic regression is appropriate for this exercise because the outcome variable had only two possible answers (indebted or not indebted).

10 We have selected eight independent variables, such as social demographics, income and responses on attitudes, to predict the likelihood of becoming indebted.

11 Our independent variables were categorical. We created a reference group for each independent variable in order to compare categories with the reference group. For example, what is the likelihood of a lower and medium income group becoming indebted compared with a higher income group (reference group).

12   We selected the 'Enter' method in SPSS when running the logistic regression. This method used all the variables simultaneously.

13   We checked that the independent variables are suitable for use in a logistic regression using the Hosmer-Lemeshow goodness of fit test which showed that the model fitted the data well.

14   The eight variables were checked for multicollinearity using the standard multiple regression module. The term multicollinearity means that the independent variables are interrelated or highly correlated among themselves. If we put highly correlated variables into the model it may result in incorrect conclusions. Our diagnostic test showed that our data did not violate the assumptions.

Test of Proportions

15   This test examines whether the proportion differ between the clusters. For example, we tested whether the proportion in younger age group differ between worriers and over-indebted customers. If the difference is sufficiently large, it will give a significant result.

Chi Square Test

16   This test examines the relationship between two categorical variables. It tests whether the counts of categorical responses, for example, who do they trust for money advice' differ between the clusters. If the observed counts are significantly higher or lower than the expected counts in one or more cells, it will give a significantly result.

Interpretation of significant results

***   **significant at 0.1 per cent level**

**   **significant at 1 per cent level**

*   **significant at 5 per cent level**

Significant at 5 per cent level means that a significant result occurring by chance is 5 per cent. That is, we are 95 per cent certain that the differences are large enough to give a significant result. Significant at 1 per cent level means that we are 99 per cent certain of the differences.