Trends in mortgage borrowers' repayment difficulties

- This article has sought to identify trends in mortgage repayment difficulties and arrears since 1992 using the British Household Panel Survey (BHPS).
- The BHPS reports that the proportion of mortgage borrowers facing repayment difficulties and arrears has fallen by over three quarters since 1992 to stand respectively at 4% and 1% in 2004.
- These results differ from CML arrears data due to differences in definitions, and a potential reluctance by borrowers, surveyed in the BHPS, to acknowledge arrears.
- The incidence of repayment difficulty and arrears increased with the number of children and among lone parents with children.
- Households with savings were much less likely to suffer from mortgage repayment problems, whereas MPPI only has a marginal effect.
- Married households tend to have the lowest incidence of repayment difficulties, whereas divorce and separation tend to increase mortgage repayment problems.
- Social class also appears to have a profound effect, with professional and managerial classes having the lowest rates of both repayment difficulty and arrears.
- We also found marked regional differences. BHPS data suggests that Scotland in particular has lower rates of arrears payment difficulties over the period considered.
- These results will feed into future statistical analysis of the BHPS to explore which factors are most important in explaining payment difficulties, to produce predictions of borrowers' default risk and establish which strategies are most successful to forestall further arrears.

Introduction

This paper examines changes to mortgage repayment risks, and possible determinants, over the period 1992 to 2004. Analysis is based on the British Household Panel Survey (BHPS) and allows consideration of trends and differences in the incidence of repayment difficulty and arrears between different groups. This article is a starting point for a wider research project[1], which aims to:

- create a statistical model of repayment difficulties to identify which factors are most important,
- develop a model that predicts and explains initial default risk, and
- examine which household adjustment strategies are most successful in forestalling further arrears.

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This article aims to explore which factors might be important in determining arrears and repayment difficulties of mortgage borrowers and might, therefore, be usefully considered in future analysis of the BHPS.

Data sources for mortgage related analysis

Empirical studies of mortgage finance in the UK typically use one of three data sources: the Survey of English Housing (SEH), the Survey of Mortgage Lenders (SML) and the BHPS[2]. While the SEH and SML data are regularly used to provide a basic description of trends and patterns in mortgage finance, the BHPS tends to be reserved for heavy-duty modelling. This paper explores the usefulness of the BHPS to describe the incidence of repayment difficulties and mortgage arrears in Britain over time.

Pros and cons of using the BHPS

The BHPS is a true longitudinal panel study in that it follows the same households and individuals over time. The first "wave" of the study was in 1992, and waves have been collected and analysed every year since then.

Essentially the purpose of the BHPS is to monitor and measure changes within households, families and individuals; to understand how people respond, individually and collectively, to social change at the micro and macro level. One of the greatest advantages of working with the BHPS is the ability to link household with individual responses, and to follow the responses of the same households and individuals over time. Also, within the BHPS households are added in each wave, where necessary, to maintain the representativeness of the sample. These advantages will be particularly useful for the later modelling stages of our research where panel regression techniques can allow for a sophisticated analysis.

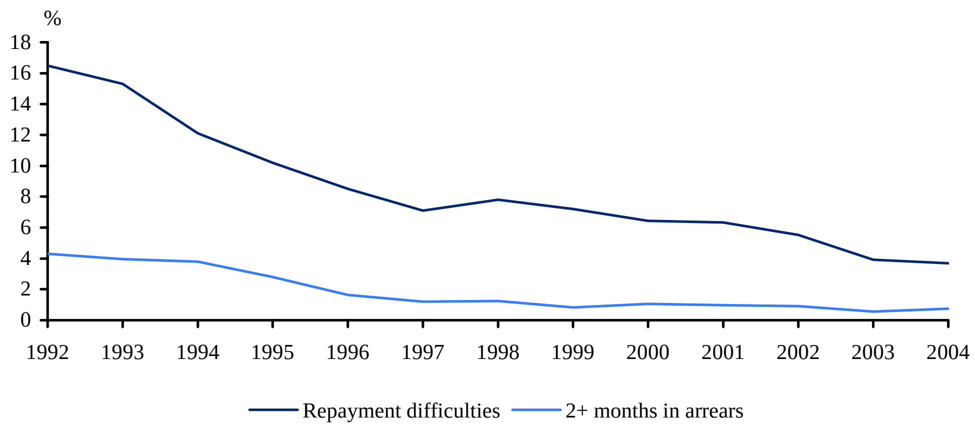
The main disadvantage with the BHPS is sample size. Around 8,000 households are interviewed each year, only 3,600 or so of which are mortgage borrowers. This means sample size problems can emerge when one considers variables with low incidence (such as default or arrears), particularly if analysis is attempted at sub-regional or sub-category level. Another limitation is that the BHPS is intended as a general survey and so it does not have some of the detailed housing questions included in more specialised surveys such as the SEH. We make some comments with regard to comparisons of this work with findings and other research based on the SEH in the final section.

What can the BHPS tell us about mortgage repayment difficulties and arrears over time?

Of the 87,548 completed household questionnaires over all thirteen waves, 36,650 were from households that owned a property with a mortgage (41.9% of all households) making it the largest category of tenure, both in each year and collectively.

Chart 1 shows how the level of repayment difficulties and mortgage arrears has fallen dramatically since 1992 as the economy recovered from the recession in the early 1990s. From 1992-2004 the percentage of households having repayment difficulties went from a high of 16.5% of all those with a mortgage in 1992 to a low of 3.7% in 2004. The proportion of households with mortgages that are two or more months in arrears fell from 4.3% in 1992 to 0.6% in 2003 and rose slightly to 0.7% in 2004.

Chart 1: Percentage of households with repayment difficulties and arrears, 1992-2004



Source: British Household Panel Survey (BHPS) (households with a mortgage)

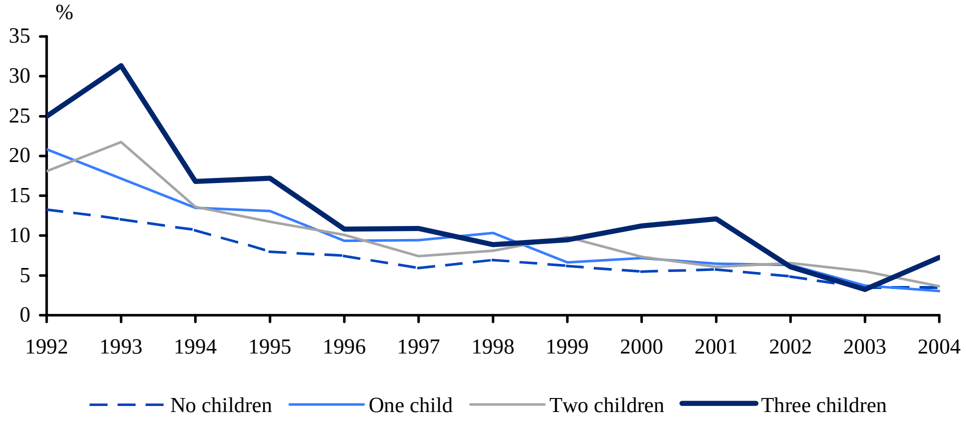
The 2004 figures are broadly in line with Survey of English Housing data, which estimate arrears at one per cent for 2003/04, although CML statistics put the proportion of outstanding mortgages in arrears at around double this at two per cent at the end of 2004. Reasons for these differences include variation in classification of arrears by consumers and lenders and a potential reluctance on the part of borrowers to acknowledge arrears in a consumer based survey.

We now consider how the incidence of problems with meeting mortgage payments varies between different household types and groups.

Number of children in a household and payment difficulties

Because an increase in the number of children in a household is associated with higher outgoings and less available finances to repay debt, it is worth exploring their experience of maintaining payments. As can be seen in Chart 2, rates of repayment difficulty and arrears have, in line with Chart 1 above, fallen considerably for all households with children from 1992 to 2004. However, within each year comparison between households with different numbers of children confirms that, in most cases, as the number of children increases the rate of repayment difficulty and arrears increases.

Chart 2: Proportion of households with mortgage payment difficulties by number of children, 1992-2004



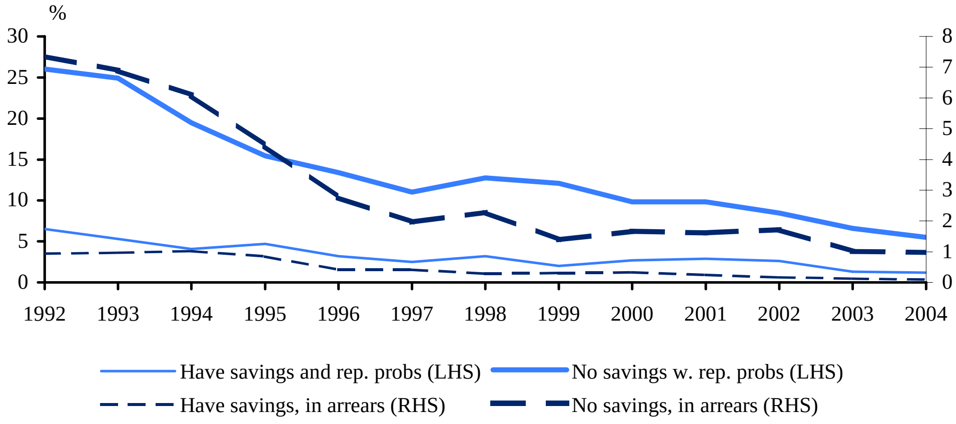
Source: BHPS (households with a mortgage)

For example, while rates of repayment difficulty stood at 13.3% for households with no children this rose to 25% for households with three children in 1992. The figures for arrears also nearly doubled between the same groups from three per cent to 6.4% in 1992. This trend continues through to the late 1990s, where the difference in arrears and payment difficulties narrows between households. From 2000 through to 2004 there is little difference in the incidence of repayment difficulty (or arrears) between households with less than three children. The impact of having three or more children compared with smaller household sizes increases markedly over this period. For example, in 2004, the rates of repayment difficulty (arrears) were 3.5% (0.7%), 3.03% (0.7%), and 3.6% (0.6%) for households with zero, one, and two children, but the incidence of repayment difficulty (arrears) for households with three or more children was 7.3% (1.9%).

Savings and repayment difficulties

Savings is another variable that is anticipated to be associated with a lower incidence of repayment difficulties. This is because savings provide households with a buffer, allowing mortgage payments to be met in the face of adverse changes in circumstances. It is also likely that those people who can afford to save are less likely to face repayment problems. As can be seen from Chart 3, those households without savings have a higher incidence of both difficulty in meeting housing costs and of arrears. Rates of repayment difficulty and arrears of households without savings have dropped significantly over time, particularly between 1992 and 1996. The incidence of repayment difficulty (arrears) dropped from 26% (7.3%) for households without savings in 1992 to 5.5% (0.98%) in 2004.

Chart 3: Households in arrears and with repayment difficulties by whether have savings

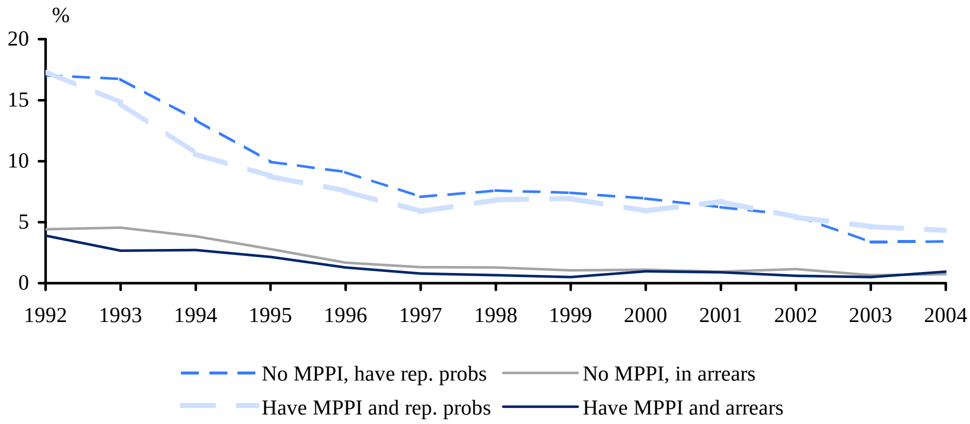


Source: BHPS (households with a mortgage)

MPPI take-up and mortgage payment difficulties

We would expect that holding Mortgage Payment Protection Insurance (MPPI) would lower the risk of mortgage arrears, as these policies pay mortgage costs typically for up to one year in the event of a successful claim due to accident, sickness or unemployment. However, concerns have been raised by past research over the role that MPPI plays within the overall safety-net. Some concerns have for instance been raised in the past about the clauses and exclusions incorporated into MPPI contracts (Kempson et al, 1999; Ford, 2002). Cost of premiums may also discourage the most vulnerable groups of mortgage borrowers (Pryce and Keoghan, 2001; Ford, 2002, and Ford et al, 2004).

Chart 4: Households in arrears and with repayment difficulties with and without MPPI



Source: BHPS (households with a mortgage)

Taken together these factors suggest that it is unlikely that those with MPPI are a random selection of all mortgage borrowers. Moreover, those most likely to take out MPPI are unlikely to be those most at risk of facing redundancy (Pryce and Keoghan, 2002). As such, the incidence of arrears may be lower among MPPI policy holders due not to the efficacy of MPPI, but due to the factors that determine the take-up of the policy. At the same time it should be noted that there are sometimes waiting periods before MPPI pays out, which means that some borrowers may have a low level of arrears (say two to three months) that then stabilise once MPPI pays out. This could be disguising the overall effects of trends seen in Chart 4.

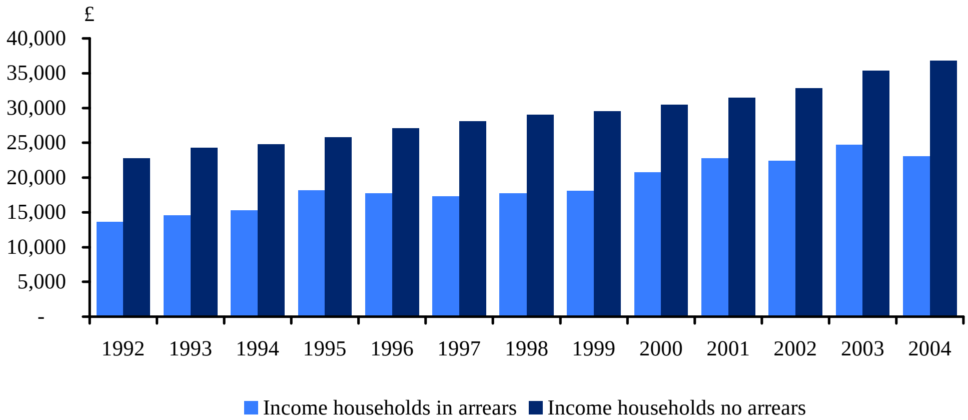
With these caveats in mind, we can see that the incidence of arrears is marginally lower in all years except 2004 for mortgage borrowers with MPPI compared to those without MPPI (see Chart 4). Households who have taken-up MPPI compared with those who have not, are at a lower risk of repayment difficulty and arrears, though the difference is often negligible. For example, the rates of repayment difficulty (arrears) in 1992 were 17.0% (4.4%) for those households without MPPI and 17.5% (3.9%) for households that have taken-up MPPI. The lowest rate of arrears was 0.5% in 2003 for households with MPPI, but this was only marginally lower than the figure of 0.7% for those without MPPI. Further analysis to explore trends in the levels of arrears of MPPI holders and non-holders would be helpful to draw out differences between the two groups. Overall, more analysis of this variable needs to be undertaken in a model of BHPS data to fully explore the relationships identified.

Annual household income and mortgage payment difficulties

One would expect that household income would have a strong relationship with the probability of a household experiencing mortgage arrears. Other things being equal, if household income were to increase, households would find it easier to maintain financial commitments with the ability to increase consumption. It is beyond the scope of this paper to hold other factors constant – that will be explored through multiple regression analysis in future.

However, we can see in Chart 5 that those with mortgage arrears had lower average household incomes than those with a mortgage who were not in arrears, with an average difference of £10,000 each year; in 1992, the average income for those households in arrears was £13,639 compared to the income of those households not in arrears at £22,759. Looking at the averages ten years later, the average income for households in arrears was £22,435 compared with the average income of households not in arrears at £32,850. Part of these differences in income are of course likely to be partly due to the events that led to arrears taking place (such as illness, unemployment or loss of overtime). A more meaningful comparison would be of different categories of social class, as we attempt below.

Chart 5: Average income of households by whether in arrears

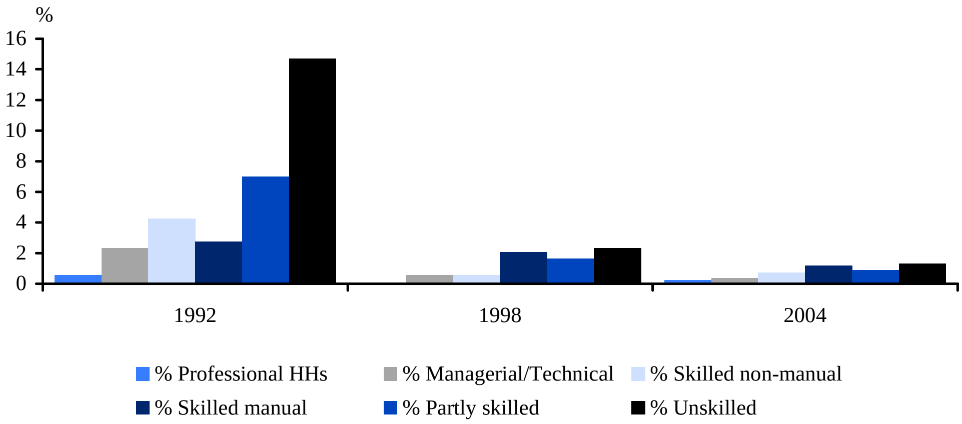


Source: BHPS (households with a mortgage)

Socio-economic group and mortgage payment difficulties

Previous work shows that lower redundancy rates and greater economic stability go hand in hand with higher socio-economic status of the household (Ling, 1998; Pryce and Keoghan, 2002). From Chart 6 it is clear that those in a higher social class professionals and managerial/technical employees, have lower levels of repayment difficulties and arrears throughout the thirteen waves of the BHPS. In 1992, while 9.7% of professional and 10.7% of managerial/technical households were facing mortgage repayment difficulty, 0.6% and 2.3% respectively were in arrears. In 2004, 2.8% of professional and 3.2% of managerial/technical households experienced repayment difficulties, with only 0.2% and 0.4% experiencing arrears.

Chart 6: Level of arrears by social group, selected years 1992-2004



Source: BHPS (households with a mortgage)

In comparison, occupations such as partly and un-skilled employees suffered the highest levels of repayment difficulties and arrears throughout the duration of the survey. In 1992, 24.2% (7%) of partly skilled and 23.5% (14.7%) of unskilled workers experienced repayment difficulties (arrears). In 2004, 7.6% (0.9%) of partly skilled and 4.2% (1.3%) of unskilled workers faced difficulties in meeting their mortgage payments (arrears).

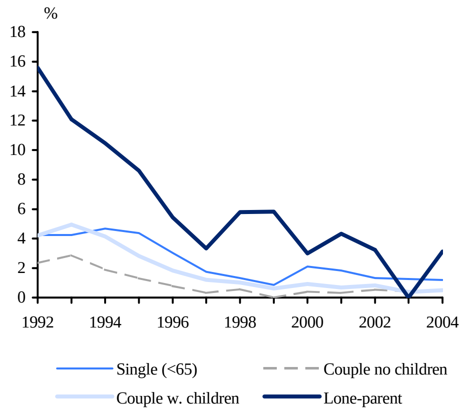
Unemployment and payment difficulties

Other research has shown the significance of the relationship between unemployment and payment difficulties/arrears (Oxford Economic Forecasting, 2001; Boheim and Taylor, 2000; Ford et al, 2004). Labour market factors are important not only because of their direct role in driving arrears and possessions, but also because of their influence on other drivers of default risk, such as the risk of accident/illness and indeed the take-up of Mortgage Payment Protection Insurance. Due to difficulties in interpreting BHPS data it has not been possible to examine the unemployment factor in this article although it will feature strongly in future research.

Household type and repayment difficulties

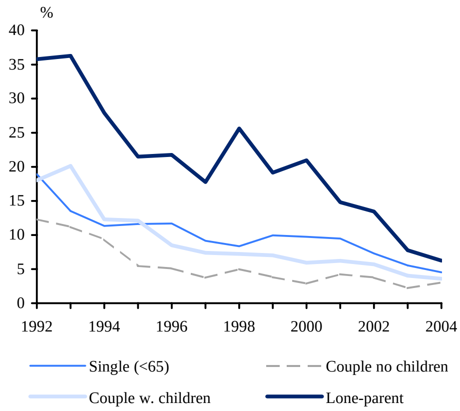
Analysis of the BHPS supports other research findings (Burrows, 1998, 2005) that household type plays a considerable role in the incidence of arrears and repayment difficulties. Charts 7 and 8 show variations between types of household and over time. In particular lone parents are much more likely to struggle with repayments and fall into arrears relative to other household types. In 1992 36% of lone parents faced repayment difficulties compared to 19% of single households under 65 and 18% of couples with children under 16. By 2003/2004 the gap between lone parents and other household types had narrowed considerably, but was still apparent.

Chart 7: Repayment problem levels by household type



Source: BHPS (households with a mortgage)
Note: Children < 16

Chart 8: Arrears levels by household type



Source: BHPS (households with a mortgage
Note: Children < 16

Age and mortgage repayment difficulties

In general, one would expect that as an individual gets older, their status, income and financial stability will also increase. Indeed, data reported in Table 1 suggest that during much of the period 1992-2004 it is the youngest age groups who are more likely to encounter repayment difficulties. Again the highest levels of repayment difficulties and arrears were seen in 1992 peaking at 17.4% and 5.1% respectively. However, between 1998 and 2004, those aged between 35 and 55 report the higher levels of repayment difficult and arrears. Over the last few years, however, it is clear that differences between age groups are relatively small and have narrowed considerably over time.

Table 1: Incidence of mortgage repayment difficulty and arrears by age of head of household

	Proportion with repayment difficulties			Proportion in arrears		
	Under 35	35-55	Over 65	Under 35	35-55	Over 65
	%	%	%	%	%	%
1992	17.37	15.93	13.2	5.13	3.76	2.97
1993	18.61	15.48	13.12	5.89	3.30	2.48
1994	12.6	14	11.3	4.14	3.65	1.77
1995	10.16	10.49	9.29	3.15	2.83	1.07
1996	6.98	7.84	8.99	1.67	1.62	1.08
1997	4.97	6.33	7.43	1.51	1.17	0.37
1998	6.01	7.73	7.36	0.90	1.45	0.92
1999	5.99	7.26	6.92	0.14	1.2	0.63
2000	5.29	6.66	6.55	0.96	1.23	0.42
2001	5.02	6.39	7.11	0.49	1.18	0.65
2002	6.23	5.83	5.18	0.75	1.01	0.84
2003	5.12	4.37	4.55	0.39	0.59	0.76
2004	5.22	4.54	4.78	0.42	0.64	0.72

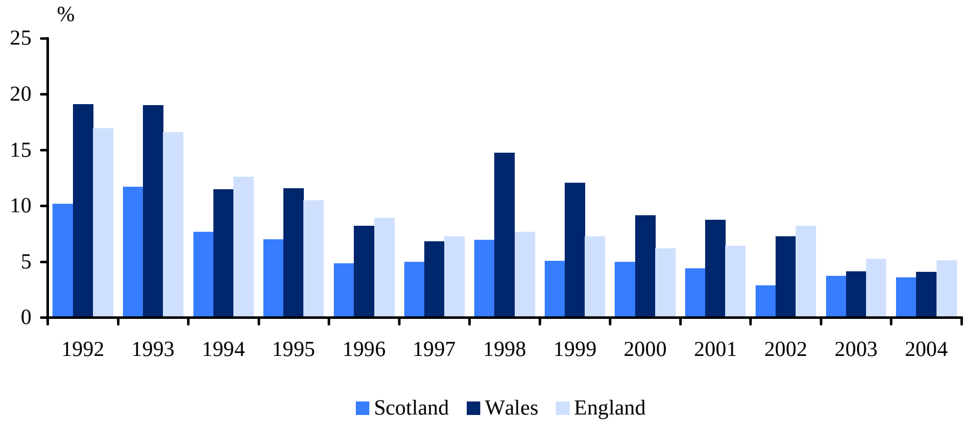
Source: BHPS (households with a mortgage)

Regional differences in repayment difficulties

As much of the literature relating to mortgage finance focuses on the English housing market, it is important to establish whether there are differences between countries in Great Britain. From Chart 9, it is clear that throughout the thirteen waves, Scotland has had the lowest reported levels of repayment difficulty (arrears), ranging from a peak in 1993 at 11.7% (2.9% in 1994), to 2.9% in 2002 (0.4% in 2004).

Differences between England and Wales fluctuate from year to year. Wales tends to have the highest incidence of repayment difficulties, whereas England tends to have the highest rate of arrears. English repayment difficulty and arrears peaked in 1992 at 17%, and at 4.6% respectively, and had its lowest proportions in 2003 at 5.3% and 0.6% respectively. The Welsh market on the other hand, hit its highest peak for repayment difficulties in 1992 at 19.1% and for arrears in 1993 at 3.8%, with low periods of repayment difficulty in 2004 at 4.1% and for arrears in 1998 at 0.9%. It must be remembered that the BHPS is likely to under-report actual levels of arrears, although there are no real grounds to suppose that differences between countries are inaccurate.

Chart 9: Percentage of households with mortgage repayment difficulties by region



Source: BHPS (households with a mortgage)

Conclusion

This article has sought to identify key trends in mortgage repayment difficulties and arrears since 1992 using the BHPS. We found that the incidence of repayment difficulty and arrears increased with the number of children, the risk rising markedly beyond two children. Savings greatly reduced the incidence of mortgage problems, whereas MPPI only has a marginal effect. Married households tend to have the lowest incidence of repayment difficulties, whereas divorce and separation tend to increase mortgage repayment problems. Social class also tends to have a profound effect, with professional and managerial classes having the lowest rates of both repayment difficulty and arrears. We also found marked regional differences. Scotland in particular tended to have lower rates of arrears and possessions over the period considered.

This provides a useful review of factors that may be likely to influence arrears and mortgage repayment difficulties. Our research now aims to take this research forward by using the BHPS to explore how we might predict future default risk by further analysis of these factors. We would also find it useful to compare this analysis with findings from other research characteristics of those in arrears based on the both the SEH (Burrows, 1998, 2005) and the BHPS (Whitely et al, 2004) to establish year on year variations and methodological issues that arise from using cross-sectional as opposed to panel data.

Endnotes

[1] This article is based on research being undertaken by Hollie-Anne Bowie-Cairns for her PhD "Household Adjustment to Mortgage Arrears: A longitudinal analysis using the BHPS" which is part sponsored by the Council of Mortgage Lenders.

[2] Other data sets which contain relevant variables include the Family Expenditure Survey, the General Household Survey and the Financial Resources Survey – see Ford and England (2002) for a review of data sources.

References

Boheim, R. and Taylor, M. (2000) My Home was my Castle: Evictions and Repossessions in Britain, *Journal of Housing Economics*, 9, pp. 287-319.

Burrows R. (1998) Mortgage Indebtedness in England: An ‘Epidemiology’, *Housing Studies*, Vol. 13, No. 1, pg. 5-22, York

Burrows R. (2005 unpublished) *Mortgage Indebtedness in England: An ‘Epidemiology’*, University of York, York

Ford J. (2002) *Safety-nets for Mortgage Payments: the Need for Research*, Council of Mortgage Lenders Research, pg. 21-33, London

Ford J. (2002) *Who is Most at Risk? Sustainable Home Ownership – The Debate*, Joseph Rowntree Foundation and the Chartered Institute of Housing, Pg. 17-21, York

Ford J. and England J. (2000) *Data and Literature on Mortgage Interest: State Provision and Private Insurance*, An evaluation report and a source book Department of Social Security Research Report No. 65

Ford, J., Quilgars, D., Burrows, R. and Rhodes, D. (2004) *Homeowners Risk and Safety-Nets: Mortgage Payment Protection Insurance (MPPI) and beyond*, ODPM, London

ISER (2005) British Household Panel Survey (BHPS), *Keeping Track: A Guide to Longitudinal Resources* www.iser.essex.ac.uk/ulsc/projects/ldr4ss/results/results.php.

Kemp P. and Pryce G. (2002) *Evaluating the Mortgage Safety Net*, CML, London

Kempson E., Ford J. and Quilgars D. (1999) *Unsafe safety-nets*, Centre for Housing Policy, York University.

Ling R. (1998) Gender, Class and Home Ownership: Placing the Connections, *Housing Studies*, Vol. 13, No. 4, pg. 471-487

OEF (2001) *The Relationship Between Mortgage Possessions and the Economic Cycle*, Oxford Economic Forecasting, Report to the ABI

Pryce G. and Keoghan M. (2002) Unemployment Insurance for Mortgage Borrowers: Is it viable and does it cover those most in need? *European Journal of Housing Policy*, 2(1)

Whitely J., Windram R. and Cox P. (2004) *An empirical model of household arrears*, Working Paper 214, Bank of England.

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