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The psychological costs of unsustainable housing commitments

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ABSTRACT

Background. The extended recession and stagnant housing market in the 1990s following the boom of the late 1980s resulted in more than half a million housing repossessions. This study explores the impact of unsustainable housing commitments on psychological well-being. We test the hypotheses that housing payment problems and housing arrears have adverse impacts on heads of households' psychological well-being over and above those caused by financial hardship more generally.

Method. Data came from the British Household Panel Survey 1991–2003 and the samples for analysis consist of: (1) 5651 male head of households producing 26 618 person-year observations, and (2) 2534 female head of households producing 9091 person-year observations. Summary statistics and multivariate, fixed effects regression models are used. Mental health was measured by the 12-item General Health Questionnaire.

Results. For male heads of households housing payment problems and entering arrears have significant detrimental effects on mental well-being and for female heads of households longer-term housing payment problems and arrears have significant detrimental effects on mental well-being. The sizes of these effects are in addition to and larger in magnitude than those associated with financial hardship more generally. The net effects appear to be relatively stable over the time of the panel data.

Conclusions. This study provides evidence that housing payment problems have independent psychological costs over and above those associated with general financial hardship. The magnitude of the effect is similar to that shown for marital breakdown and job loss.

INTRODUCTION

Since 1991, more than half a million households have had their homes repossessed and more than one million eviction orders have been made on behalf of social and private landlords (ODPM, 2005). As house purchase is typically the largest financial commitment made during a lifetime (Maclennan, 1997) we expect the threat of losing one's home to greatly affect psychological well-being. In this work we use data from the first 13 annual waves of the British Household Panel Survey (BHPS) to explicitly test the hypothesis that housing payment problems and rent or mortgage arrears adversely affect a householder's psychological well-being over and above that caused by negative financial events and financial hardship more generally.

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Background

Statistics indicate that more than 350 000 households were in mortgage arrears and 75 500 were repossessed in 1992 (ODPM, 2005). This recession followed the boom of the late 1980s originating in the liberalization of financial markets and the increase in competition in the mortgage market. It became easier for more

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people to borrow a larger proportion of both the house value and their income, and there was a rise in household sector mortgage debt from 25% of annual disposable income in 1980 to 75% in 1992 (Brookes *et al.* 1994). A subsequent tightening of monetary policy saw a sharp rise in interest rates and unemployment, resulting in the longest sustained period of depressed housing market activity in recent times (Malpass & Murie, 1999). As the housing market stabilized, there was an equally dramatic decline in the number of households facing arrears and repossession. By 2003 fewer than 10 000 homes were repossessed and 50 000 households were in arrears. However, there remained more than 160 000 households who struggled to meet the costs of their housing. Evidence suggests that unsustainable housing commitments will continue, in part because of the increased insecurity of social and economic life (Wilkinson, 1996; Ford & Wilcox, 1998).

Empirical work highlights the importance of structural factors (e.g. interest rates, income-to-loan ratios), income and expenditure factors (e.g. unemployment, poor health, marital dissolution, unanticipated financial problems) and personal factors (e.g. financial management skills, personal preferences) in determining arrears and repossession (Ford, 1993; Ford & Burrows, 1999; Böheim & Taylor, 2000). Job loss, a fall in earnings and relationship breakdown are highly correlated with mortgage and rent arrears. Younger heads of household have been found to be more at risk as they typically have less experience in managing financial affairs and also face higher rates of job mobility and more inconsistent income streams (Lea *et al.* 1993; Nettleton & Burrows, 1998; Böheim & Taylor, 2000). Older households have had more time to accumulate savings to cushion against times of unexpected financial hardship.

There are a few studies that specifically examine the impact of problem debt and income on psychological health. These show a strong relationship between financial distress (low living standards and poverty) and psychological problems and depression (Marmot *et al.* 1997; Weich & Lewis, 1998). However the direction of causality is sometimes unclear. Roberts and co-workers (1998) suggest that low levels of mental health reduce the ability to manage finances successfully, although analyses of longitudinal data indicate that it is more likely that financial debt causes psychological problems (Marmot *et al.* 1997; Stradling, 2001; Webley & Nyhus, 2001). Although studies have found little relationship between income levels, income inequality and mental health once other factors are controlled for, a stronger association between perceived financial difficulties and psychological health has emerged (Wildman, 2003). Brown and colleagues (2005) find that consumer (but not mortgage) debt is associated with increased levels of psychological distress. The onset of mortgage indebtedness and keeping up with mortgage payments has however been shown to cause anxiety and the fear of losing one's home (Ford *et al.* 1995; Nettleton & Burrows, 1998).

There is a wider and long-established literature on the role of the home, housing and urban environment in determining psychological health, with mental stress strongly correlated with housing type (Fanning, 1967; Cappon, 1971; Edwards *et al.* 1982). The home, and particularly homeownership, allows control of physical space and the assertion of identity and provides psychic and physical security (Porteous, 1976). Home ownership serves as a financial investment that offers a sense of control and security and allows households to make independent decisions about the appearance of the dwelling and its furnishings (Foley, 1980; Hahn, 1993). Early studies indicate that removing an individual from their home incurs a dramatic decline in health (Ellenberger, 1971; Fried, 1963).

This paper assesses the impact of unsustainable housing commitments (payment problems and rent or mortgage arrears) on psychological health when allowing for other confounding factors and disruptive life events such as marital dissolution and job loss. We distinguish the impact of unsustainable housing debt from the associated negative financial events and low income more generally and disentangle the complex sequence of events that contribute to households finding themselves with unsustainable housing commitments. We add to previous work by Nettleton & Burrows (1998), who only had the first five waves of the BHPS with which to work, by examining the impact of unsustainable housing commitments over the whole of the 1990s and beyond while using statistical

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techniques that account for time-invariant individual characteristics.

METHOD

We use data from waves 1–13 of the BHPS which provide information on individual and household characteristics from 1991 to 2003. The first wave was designed as a nationally representative random sample of the population of Great Britain living in private households in 1991. These original respondents and any adult co-residents are interviewed at annual intervals. Details of the BHPS can be found in Buck (1990) and Taylor and others (1998).

Sample

The analyses presented in this paper use a subsample drawn from the BHPS data, namely working age heads of households – men aged 16–64 and women aged 16–59. We focus on household heads as by definition they are responsible for meeting housing payments and will play the lead role in household financial decision-making. We expect them to bear the main psychological costs of any consequences. Heads of households were also mainly responsible for answering the housing finance questions that are central to our analysis. We use an unbalanced panel and allow heads of households to enter and leave the sample over time. We exclude from the analysis any observations where the head of household lived in rent- or mortgage-free accommodation (these are not at risk of housing payment difficulties), full-time students (who live in temporary accommodation and move frequently) or who had missing data on any relevant variables.

Measures

Mental health

The 12-item General Health Questionnaire (GHQ) has been used in all waves of the BHPS. It is the most widely applied self-completion assessment measure of minor psychiatric morbidity in the UK (Goldberg & Williams, 1988; McCabe *et al.* 1996). We use the 36-point version of the GHQ score, in which responses to each question are summarized on a scale from 0 to 3. This results in a total GHQ score ranging from 0 to 36, where high scores correspond to low psychological well-being. The GHQ in the BHPS has been shown to be robust to retest effects, making it a suitable longitudinal instrument (Pevalin, 2000).

Housing finance indicators

The BHPS data contain annual information on housing finance problems and the severity of such problems. In this analysis we use two indicators. (1) Each head of household is asked, 'Have you had problems paying for your housing over the last 12 months?' (2) If the respondent answers 'Yes' to (1) they are then asked, 'Over the last 12 months were you ever two months or more late with your rent/mortgage payments?' Therefore we can identify which households were having problems meeting their housing costs and which of these were in arrears with their rent or mortgage.

Control variables

Our empirical models control both for factors that are important determinants of psychological health and for negative financial events that are likely to be correlated with housing finance problems. These are likely to be wide-ranging and compounding as housing payment problems are unlikely to be an isolated life event (Nettleton & Burrows, 1998). We include both household income in the month prior to interview (in log form) and also a variable indicating whether or not the household is in the bottom quartile of the equivalent household income distribution in the relevant year. To measure the severity of current financial hardship, we include the number of items from the following list that the household are unable to afford: to keep their home adequately warm, an annual holiday, to replace worn out furniture, to buy new clothes, to eat meat on alternate days, and to feed visitors at least once a month. We also include a variable indicating whether or not the head of household is unable to save from their current income (although this may reflect intertemporal consumption preferences as much as financial hardship). To distinguish between the immediate psychological cost of negative financial events and the longer-term effects, we also include variables indicating whether the head of household entered low income since last year and whether they have stopped saving since last year. We also control for household wealth

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(Lea *et al*. 1993) by including self-assessed house value for home-owners. By including this together with the size of the original mortgage on the property we allow housing equity to influence psychological health. These take the value zero for household heads in rented accommodation.

Studies have illustrated the impact of unemployment on mental well-being (Clark & Oswald, 1994; Clark, 2003; Wildman, 2003; Hauck & Rice, 2004), and so we include indicators of current labour market status (not currently in work, in self-employment, in part-time employment, with full-time employment as the reference category). We also include a variable indicating whether or not the head of household had lost their job in the last year to distinguish between the immediate and longer-term psychological costs associated with being jobless. We also include variables measuring elapsed duration in the current labour market state. For those in employment, we include measures of their occupation and their working hours (which take the value zero for those not employed).

Other covariates include factors that affect household expenditure patterns, housing preferences and psychological health such as marital status (Reissman & Gerstal, 1985; Richards *et al*. 1997; Pevalin & Goldberg, 2003; Wildman, 2003; Wade & Pevalin, 2004), and the age and number of children in the household (Michelson, 1976; Lea *et al*. 1993). Given the well documented relationships between housing and mental health, we also include variables that measure housing tenure, housing type (detached, semi-detached, terraced, flat) and quality – the latter include, from 1996 onwards, the ratio of household size to the number of rooms in the house and the number of problems from which the accommodation suffers (Fanning, 1967; Cappon, 1971; Gillis, 1977; Edwards *et al*. 1982; Lea *et al*. 1993; Ross & Mirowsky, 2001). The psychological impact of payment arrears or eviction/repossession may be dampened if many households are suffering the same fate, and we include as additional covariates the aggregate number of households in England and Wales in each calendar year that were more than 6 months in arrears, and that were repossessed. These are available from the website of the Office of the Deputy Prime Minister (ODPM, 2005). Other covariates include whether or not the spouse of the head of household is in employment (if married or cohabiting), region of residence and month and year dummies. Although we anticipate an association between mental and physical health (Nettleton & Burrows, 1998; Pevalin & Goldberg, 2003), we do not include measures of physical health because of potential endogeneity.

Analytic strategy

As the BHPS comprises panel data, we observe GHQ scores both before and after events occur and can examine changes in, rather than levels of, psychological health. We can also estimate panel data models that allow for time-invariant, individual-specific, unobserved effects that may otherwise bias the coefficients of interest. Latent time-invariant psychological characteristics have been found to systematically influence reported well-being scores (De Neve & Cooper, 1999) and estimation methods that do not allow for such time-invariant unobserved traits are likely to result in biased estimates.

We take advantage of the longitudinal nature of the data to control for time-invariant, individual-specific, unobserved characteristics by using within-group, or fixed-effects, regression models in which variables are defined as deviations from their individual means over time (see Wooldridge, 2002). This is important, as descriptive statistics indicate that individuals who experience negative financial events and who enter unsustainable housing commitments have higher GHQ scores than average even prior to the event (see Table 1). Therefore ordinary least squares (OLS) estimates would be positively biased and F tests for the impact of individual fixed-effects are consistently statistically significant, rejecting OLS specifications. Therefore we estimate whether unsustainable housing commitments result in heads of households having poorer psychological health *than usual*, controlling for household income, the proximity and nature of negative financial events and other observable characteristics. This procedure removes the person-specific fixed effects and time-invariant individual and household characteristics. Hausman tests rejected random effects models in favour of the within-group fixed effects specifications.

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Table 1. *Average General Health Questionnaire (GHQ) scores by negative financial events*

Event	Mean GHQ scores $t-1$	t	Change	n
Entered payment problems $t-1$ to t	12·75[a]	13·38[a,b]	0·62[c]	1342
Entered arrears $t-1$ to t	13·48[a]	14·11[a,b]	0·63[c]	388
Entered low income $t-1$ to t	12·63[a]	12·92[a,b]	0·30[c]	1370
Stopped saving $t-1$ to t	10·63[a]	10·90[a,b]	0·27[c]	3149
Entered unemployment $t-1$ to t	13·28[a]	13·82[a,b]	0·54[c]	585
Stopped working $t-1$ to t	12·78[a]	13·68[a,b]	0·90[c]	928
Marriage dissolved $t-1$ to t	12·61[a]	13·80[a,b]	1·19[c]	271
All	11·08	11·07	0·01	26 833

British Household Panel Survey 1991–2003. Heads of households only. Weighted using cross-sectional weights.

[a] Indicates GHQ score significantly different from the gender-specific average at $p<0·05$ level.

[b] Indicates GHQ score at t significantly different from that at $t-1$ at $p<0·05$ level.

[c] Indicates change in GHQ score between $t-1$ and t significantly different from the average at $p<0·05$ level.

RESULTS

Table 1 summarizes the impacts on GHQ scores of experiencing negative financial events between $t-1$ and t, such as entering payment problems, entering rent or mortgage arrears, transitions into low income, stopping to save regularly, entering unemployment, leaving work and marital separation. (Marital separation includes divorce, separation and the death of a partner. There are too few observations to disaggregate this further.) The data in this table suggest two things. First, individuals who experienced negative financial events already had significantly higher GHQ scores than average prior to the event (the exception being those who stopped saving). Therefore, estimation procedures that do not allow for this will result in biased coefficients on the variables of interest. Secondly there are substantial psychological costs involved with all of the events. In particular, average GHQ scores increased significantly for heads of households who entered payment problems (top row), from 12·75 at $t-1$ to 13·38 at t. A similar increase is associated with entering arrears (second row), from 13·48 to 14·11. The mean GHQ score at t of heads of household who had entered arrears since $t-1$ was 3·1 points above average, strong evidence supporting our hypothesis of psychological costs associated with arrears. Therefore, the raw data indicate strong relationships between unsustainable housing commitments, negative financial events and psychological well-being. We now turn to multivariate analysis to control for these confounding factors and to isolate the psychological costs of the threat of home loss.

We present results from the multivariate analysis in Tables 2 and 3. These show the fixed-effects regression coefficient estimates on the variables of interest for male and female heads of households respectively. We distinguish between male and female heads of households because of differences in household structures, labour supply, housing preferences and well reported gender differences in the determinants of psychological health and in the impact of housing on psychological health (Gillis, 1977; Edwards *et al.* 1982; Arber, 1991; Juong *et al.* 1997; Picinelli & Wilkinson, 2000; Wildman, 2003; Hauck & Rice, 2004). We estimate three models. Model 1 presents the estimates of the unsustainable housing commitment variables but without any controls, and therefore this examines the impact of housing payment problems in the raw data. Model 2 introduces the full range of variables controlling for the impacts of income, negative financial events and household and demographic characteristics. Model 3 distinguishes between recent entrants into unsustainable housing commitment and those who were in longer-term difficulties, by including variables indicating whether or not such payment problems arose within the previous 12 months.

Male heads of households

Initially we focus on the results for men (Table 2). Model 1 indicates that being in payment problems increases GHQ scores, on average, by 1·247 points. Being in arrears increases GHQ scores by an additional 0·706 points. Therefore a man in payment arrears has, on average, a GHQ score 1·95 (1·247 + 0·706) points higher than usual. The coefficients are added because those in arrears have, by definition, housing payment problems (see the earlier description of variables). Model 2 introduces the full range of control variables. These indicate that not saving and being in financial hardship are associated with having lower levels of mental health than usual, all else being equal

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Table 2. *Fixed-effects regression models of the determinants of mental well-being, male heads of households: British Household Panel Survey 1991–2003*

Model	1	2	3
Indicators of unsustainable housing commitment			
In housing payment problems	1·247**	1·248**	1·259**
	(10·74)	(10·70)	(8·12)
In arrears	0·706**	0·629**	0·113
	(3·17)	(2·84)	(0·37)
Entered housing payment problems since last year			−0·014
			(0·07)
Entered arrears since last year			1·002**
			(2·61)
Indicators of financial situation			
Log household income		−0·007	−0·008
		(0·13)	(0·14)
In bottom quintile of equivalent household income distribution		0·331	0·335
		(1·92)	(1·94)
Not currently saving regularly		0·378**	0·382**
		(4·76)	(4·80)
Number of unaffordable items		0·168**	0·166**
		(4·14)	(4·10)
Indicators of recent negative event			
Entered low income since last year		−0·022	−0·034
		(0·11)	(0·17)
Stopped saving since last year		0·007	0·003
		(0·07)	(0·03)
Lost job since last year		0·702**	0·674**
		(3·24)	(3·11)
Other variables of interest			
Not employed		1·627**	1·628**
		(6·21)	(6·22)
Widowed/divorced		1·186**	1·182**
		(3·99)	(3·98)
R^2	0·008	0·031	0·031
No. of individuals		5651	
No. of person-years		26 618	

Within-group estimation results. Absolute robust *t* statistics in parentheses. Dependent variable is 36-point GHQ score. Models 2 and 3 are also adjusted for two labour market status dummies (part-time employed, self-employed), tenure in current status by current status, usual weekly hours of work (if working), spouse's employment status, region, housing tenure, housing type (detached, semi-detached, terraced, flat), marital status, number and ages of children, occupation if employed, log house value, log of size of mortgage, persons per room, number of housing problems, year dummies, number of households in arrears, number of households suffering repossession, all measured at *t*.

**, * indicate statistical significance at the 1% and 5% confidence level respectively.

(the coefficients on these variables are positive and statistically significant). However, entering low income or stopping saving since the last year have no additional impact. Income levels do not have any additional impact on GHQ scores (see also Wildman, 2003). Men who are not in full-time work experience an increase in the GHQ score of 1·6 points. This effect increases to 2·33 (1·627 + 0·702) if they lost their job since the previous date of interview. Therefore there is a large immediate impact of job loss on psychological well-being. Marital dissolution also worsens mental well-being by 1·186 GHQ points. However, the addition of these controls has little impact on the size and significance of the unsustainable housing commitment indicators. Having problems meeting housing costs increases GHQ scores by 1·248 points, while being in arrears increases GHQ scores by an additional 0·629. The sizes of these effects indicate that the psychological cost of housing payment problems and arrears is similar to that from marital dissolution and unemployment.

But what are the impacts of longer-term housing payment problems relative to recent entry into housing payment problems? Model 3 looks at this issue by introducing variables indicating whether housing payment problems

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Table 3. *Fixed-effects regression models of the determinants of mental well-being, female heads of households: British Household Panel Survey 1991–2003*

Model	1	2	3
Indicators of unsustainable housing commitment			
In housing payment problems	0·619**	0·572*	0·717*
	(2·79)	(2·56)	(2·59)
In arrears	0·080	0·209	1·319*
	(0·21)	(0·55)	(2·56)
Entered housing payment problems since last year			−0·264
			(0·73)
Entered arrears since last year			−2·183**
			(3·29)
Indicators of financial situation			
Log household income		0·030	0·035
		(0·25)	(0·29)
In bottom quintile of equivalent household income distribution		0·556*	0·572*
		(2·18)	(2·25)
Not currently saving regularly		0·642**	0·634**
		(3·24)	(3·20)
Number of unaffordable items		0·236**	0·241**
		(3·15)	(3·22)
Indicators of recent negative event			
Entered low income since last year		−0·109	−0·072
		(0·37)	(0·24)
Stopped saving since last year		−0·550*	−0·536*
		(2·17)	(2·11)
Lost job since last year		0·643	0·705
		(1·77)	(1·94)
Other variables of interest			
Not employed		0·802	0·798
		(1·44)	(1·43)
Widowed/divorced		0·761	0·740
		(1·64)	(1·59)
R^2	0·002	0·028	0·030
No. of individuals		2534	
No. of person-years		9091	

Within-group estimation results. Absolute robust *t* statistics in parentheses. Dependent variable is 36-point GHQ score. Models 2 and 3 are also adjusted for two labour market status dummies (part-time employed, self-employed), tenure in current status by current status, usual weekly hours of work (if working), spouse's employment status, region, housing tenure, housing type (detached, semidetached, terraced, flat), marital status, number and ages of children, occupation if employed, log house value, log of size of mortgage, persons per room, number of housing problems, year dummies, number of households in arrears, number of households suffering repossession, all measured at *t*.

**, * indicate statistical significance at the 1% and 5% confidence level respectively.

were entered since the previous year. The results indicate that recent entry into housing payment problems has no additional psychological impact – the coefficient on entering payment problems since last year is small (−0·014) and not statistically significant. Therefore being in housing payment problems increases GHQ scores among men by 1·259 points, while the recent entry into such problems reduces this by 0·014 points. However the additional impact of recently entering arrears increases GHQ scores by 1·002 points. The sizes of the coefficients on the arrears variables imply that male heads of households who have entered arrears in the previous year suffer an increase in their GHQ scores of 2·36 points (1·259 + 0·113 − 0·014 + 1·002).

Therefore for male heads of households we find that housing payment problems and entering arrears have significant psychological costs over and above those relating to the associated negative financial events. The sizes of these effects are similar in magnitude to those associated with unemployment or marital dissolution.

Female heads of households

Table 3 presents the coefficient estimates for female heads of households. Model 1 shows that female heads of households suffer psychologically through having housing payment

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problems. Such problems increase GHQ scores by 0·619 points. However, being in arrears has no additional impact on mental well-being – the coefficient is small (0·080) and not statistically significant. In Model 2 we introduce the full range of control variables. Estimates indicate that the effect of housing payment problems is robust to the inclusion of these variables, having an impact comparable to that of being in the bottom quartile of the household income distribution. Coefficients on the other variables indicate that female heads of households in low income or who were not saving regularly suffered lower levels of mental health than normal. Furthermore, each additional item that the household could not afford increases GHQ scores by 0·236 points. The estimates also indicate that it is a longer-term lack of saving that contributes to reducing mental well-being in that stopping saving since the previous year has little impact on psychological health (0·642 − 0·550 = 0·09) but a longer-term lack of saving increases GHQ scores by 0·642 points.

Model 3 distinguishes between the immediate impact of falling into unsustainable housing commitments and the impact of longer-term difficulties. The estimates indicate that it is longer-term difficulties meeting housing payments that incur psychological costs. Recent entry into payment problems increases GHQ scores by 0·45 (0·717 − 0·264) points, while longer-term problems increase scores by 0·717 points. Entering arrears within the last year has little impact on mental well-being among female heads of households. The net effect can be calculated as 0·717 + 1·319 − 0·264 − 2·183 = −0·411. However, the longer-term impact of arrears is large and statistically significant, increasing GHQ scores by 2·036 (0·717 + 1·319).

Therefore for female heads of households we find that longer-term housing payment problems and arrears have significant psychological costs. The sizes of these effects are in addition to and larger in magnitude than those associated with financial hardship more generally.

Effects over time

In the regression results we have presented in Tables 2 and 3 the coefficients represent the average effects over the sample period, 1991–2003. Nettleton & Burrows (1998) discuss the possibility of contextual variation in these effects as the housing market changes over time. To address this possibility, we allowed the impact of housing payment problems and arrears to vary over time by including in the models interaction terms with year of interview (results not shown). These analyses indicated that the net effects of payment problems and arrears did not vary significantly over the time period 1991–2003. Therefore the detrimental effects on mental well-being are consistent over time and changes to the overall housing market do not appear to reduce or amplify the effects.

DISCUSSION

In this paper, we have used panel data to identify the psychological costs of unsustainable housing commitments over and above the impact of financial hardship more generally, and compared them with the costs associated with other disruptive events such as the loss of a partner or a job. Although the number of households in Britain experiencing repossession and arrears has fallen over the last decade, evictions have remained relatively stable. In 2003 almost 200 000 households either lost their homes or were more than 6 months in arrears with their housing payments, and heads of households are more likely to have difficulties meeting their housing costs than to be unemployed.

The starting point of our empirical analysis is the hypothesis that unsustainable housing commitments adversely affect the head of household's psychological health in addition to the associated financial hardship. Homeowners have made large financial, emotional and psychological investments in their home. We focus on heads of households, as they are primarily responsible for meeting housing costs and for the financial well-being of their household.

For male heads of households, we find that arrears and housing payment problems have significant psychological costs, even controlling for financial hardship and negative financial events. These costs are larger for arrears than for payment problems, and are equivalent in size to those associated with unemployment or marital dissolution. For female heads of households, it is longer-term unsustainable housing commitments that have psychological costs.

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There are some limitations to this study worth noting. The first concerns the use of the 12-item GHQ as a measure of mental health. Although the GHQ has been well validated, it is a non-specific measure that does not discriminate between types of mental disorder nor provide for precise clinical diagnoses. Secondly, the rules for following respondents in the BHPS mean that when an eviction or repossession is concurrent with a family breakdown then it is possible that one of the spouses is not followed in the next wave of data collection. Thirdly, we estimated models for males and female heads of household separately as we wished to allow for differences by gender. This was necessary because of the use of fixed effects techniques. However, the interplay of spouses' mental health on each other in these situations is worthy of further work.

Notwithstanding these limitations, this study provides unique evidence of the effects of unsustainable housing commitments on the mental well-being of the heads of household. These effects are of similar magnitude to those observed in a marital breakdown or job loss, which places these commitments in the category of a major life event with regard to the potential effect on mental health. As such, we would argue that these costs to mental health need to be incorporated into assessments of the impact of housing market recessions in order accurately to reflect their true welfare consequences for households. This is especially relevant as unsustainable housing commitments are probably a compounding factor highly likely to be concomitant with marital breakdown and/or job loss.

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DECLARATION OF INTEREST

None.

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