Resolution Foundation

# *On borrowed time?*

## *Dealing with household debt in an era of stagnant incomes*

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## Contents



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# Summary

### *The pursuit of growth in an era of deleveraging…*

More than four years after the start of the global financial crisis, national output in the UK remains some 3 per cent below its pre-recession level. Although there are some signs of improvement – in GDP and in employment for instance – millions of families find themselves no better off now than they were at the turn of the millennia. As the Commission on Living Standards has reported, this goes beyond a mere recession effect and will not necessarily be fixed by a return to economic growth alone: forces associated with globalisation, technical change and changing labour market institutions meant that the wages of ordinary workers were stagnating long before the downturn.

But **if growth on its own is not enough, it remains the fundamental prerequisite of any improvement in the living standards of low to middle income families**. Yet the UK economy faces several headwinds, from its exposure to the troubled euro area to fiscal consolidation, the ongoing squeeze on incomes and tight credit conditions. As with all financial crisis-inspired downturns, the overhang of debt built up during the boom years is likely to be another important one.

In part, the sluggish recoveries associated with the vast majority of financial crises may be inevitable, given the need for deleveraging among over-indebted households, firms and banks. However, they may also be the product of inappropriate or insufficient policy responses. Clearly the choices are far from simple. A rapid reduction in debts, achieved either through forced defaults or a reallocation of resources towards debt repayment and savings may be associated with significant human and social costs, with the paradox of thrift ultimately proving disastrous for growth. Equally though, a more gradual process may result in a protracted return to normal, with the persistence of zombie households and firms holding back new sources of growth.

**The extent to which intervention in the deleveraging process is either desirable or feasible as well as the optimum path to follow has become one of the biggest economic debates in the post-crash period**. To date however, much of the debate has focused on what shouldn't be done – the risks to economic performance associated with differing approaches – rather than on potential ways forward. Lessons from history and across countries suggest that positive intervention *is* possible.

This debate covers all types of debt of course – public and private – but, from the perspective of the low to middle income households that are the focus of our work, the prospects for *household* debt has perhaps the most direct and immediate impact. **The Resolution Foundation's new project – *Deconstructing Debt* – therefore seeks to identify just how far the household debt shadow stretches in the UK and, in so doing, consider options for deleveraging that serve to both support individual families and facilitate a return to sustainable economic growth**. We will publish a series of papers and host a range of events which will look at the micro and macro impact of debt, focusing in particular on prospects under a range of potential trajectories for GDP, household incomes and interest rates. We will use this evidence base to help form policy recommendations that will draw on international experiences and on the expertise of a range of UK stakeholders.

### *A debt boom built on loose credit and growing asset values…*

This first paper sets out the issues before us and highlights the questions we want to explore in more detail. We begin with a discussion about how and why debt grew in the pre-crisis years, before turning to study the current scale and distribution of exposure to debt across households. Finally, we look at the link between household debt and prospects for economic growth and set out a range of broad policy considerations that will frame our future work.

In common with other financial crises, **the global crash of the late-2000s was the result of a rapid increase in private sector (households, firms and banks) debt relative to national income and an associated over-valuation of assets – particularly housing – with the whole thing being underpinned by an increase in risk-taking and complexity in the financial system**.

In the UK context, private sector debt more than tripled relative to GDP between 1987 and the start of recession in 2008. While much of this was driven by the increased international exposure of financial institutions, UK households played their part. Over this period, household debt rose from 57 per cent of GDP to 109 per cent, accounting for around one-quarter of overall UK debt at the start of the downturn. While unsecured lending (loans, credit cards etc) increased steadily over the period, the bulk of household borrowing (more than four-fifths) was consistently secured (primarily mortgages) and it was growth in this type of lending that drove the explosion in household debt during the 2000s. The credit boom therefore reflected – and potentially fuelled – the housing bubble that developed over this period.

Borrowers and lenders alike were motivated by artificially low interest rates, which were held down to some extent by a surge in capital inflows from emerging economies such as China. In addition, the arrival of specialist lenders and the use of securitisation following financial deregulation in the mid-1980s meant that households were offered an array of products (the number of different mortgages peaked at close to 12,000 in 2007, with around two-thirds of these being available to credit-impaired borrowers) at increasing multiples of their income (the median multiple rose from 2.6 in 2002 to 3.2 in 2007), often on an interest-only basis (such loans accounted for around one-third of outstanding mortgage balances in 2007) and with fewer and fewer checks (income was unverified on nearly half of the mortgages agreed in 2007).

### *Leaving many in a highly exposed position…*

For some, the growth in household debt was the result of an irresponsible consumption binge. However, total household liabilities were largely matched by financial assets at the aggregate level, suggesting that the additional borrowing was fuelling investment – particularly in housing – rather than consumption (though whether the rise in asset values was sustainable is another issue).

Looking below the aggregate position though, **those holding the debts were clearly not the same as those holding the assets**. More specifically, funds borrowed by younger and lower income households entering or moving up the housing ladder were transferred to older and higher income households downsizing or exiting the market. While this imbalance may unwind to some extent over time – via future bequests – there are clear issues around intergenerational equity and, in any instance, those who have stretched themselves to get onto the housing ladder in recent years must continue to service their debts in the meantime.

**The distribution of debt exposure is therefore crucial to the financial health of the household sector and, by implication, to the prospects for economic recovery more generally. A variety of data suggest that much of the debt hangover is concentrated in the hands of a sizeable, but highly exposed, minority**.

For example, net worth – that is the value of financial and physical assets minus secured and unsecured liabilities – became more unevenly skewed over the course of the crisis. Among households with mortgages, values fell across the bottom three-quarters of the net worth distribution between 2005 and 2012, but rose among those with the highest levels of wealth. Crucially, mortgagor households in the bottom 5 per cent of the net worth distribution recorded *negative* worth in the latter period: that is, they owed more than they held. Among renter households, this negative position stretched across the bottom 50 per cent of the net worth distribution in 2012, compared with 29 per cent of such households in 2005.

Focusing instead just on debt, exposure appears to be particularly marked among low to middle income households. For instance, borrowers in the poorest 10 per cent of families spent just under half (47 per cent) of their monthly income on repayments in 2011, compared with an average of 9 per cent among those in the richest ten per cent. And debt problems may well be exacerbated by today's tight credit conditions. These reduce the ability of debtors to renegotiate or restructure their debts to ensure they are taking advantage of today's low interest rates. Once again, it is low to middle income households who appear to be most affected: one-in-three households in the bottom two deciles of the income distribution faced some form of credit constraint in 2011, compared with around one-in-eight in the top income decile.

### *Fallout has so far been limited, but many are close to the edge*

Yet despite the growth of household debt, and the particularly exposed position of low to middle income borrowers, **the predicted post-crash avalanche of defaults, bankruptcies and home possessions has not yet come to pass. This outcome has been underpinned by four factors: monetary loosening; relatively small house price corrections; the resilience of employment; and forbearance**.

- ❖ From a monetary perspective, sharp reductions in the Bank of England's base rate have helped keep down the cost of servicing debts and meant that many borrowers have benefited from reductions in their repayments that have helped to offset income falls.
- ❖ On housing, post-bubble prices have fallen by significantly less than in countries such as Spain, limiting the numbers of households thrust into negative equity. This is likely to reflect the fact that pre-crisis prices in the UK were in part pushed by under-supply of new housing; in contrast, prices in Spain and the US increased *despite* construction booms.

- To the extent that house prices *have* fallen in the UK, they have perhaps mattered less than in other countries because unemployment here has not increased as much as predicted at the start of the recession. As such, fewer families have found themselves unable to keep up with their repayments.

- Finally, debt difficulties have been eased to some extent by the widespread use of forbearance. Somewhere between 5 per cent and 12 per cent of households with mortgages are believed to have some such agreement in place – with this figure *rising to around one-quarter in the lowest income quintile*. Around half of those benefiting think they would have been in arrears were it not for the forbearance extended to them.

Yet **even against this backdrop, we can identify a group of some 3.6 million households that appear to be 'debt loaded'**. These households, which spend more than one-quarter of their income on secured and unsecured debt repayments, display particularly high levels of concern about their debt position and lack any room for manoeuvre in the face of future shocks to their incomes or expenditure needs.

For example, three-quarters of such households say they are concerned about their current debt level, with one-quarter saying they are 'very' concerned. Similarly, one-third say they have had difficulty paying for their accommodation in the past 12 months and four-fifths of those with unsecured loans consider the repayments to be a financial burden. More than two-thirds of these debt loaded households say they do not have enough spare money to deal with any emergencies, and two-fifths say that they have been put off spending by the cost of accessing credit.

More generally, and contrary to widely held views, a large proportion of mortgage holders face higher costs today than in the 1990s when interest rates were far higher. For example, one-in-five mortgagors – or 2.4 million households –spend more than one-quarter of their gross income on repayments, up from around one-in-ten in the late 1990s when the base rate was 7 per cent.

### *And there may be trouble ahead…*

Most worryingly, there is considerable uncertainty about how each of the mitigating factors discussed above will develop in the coming years.

- Any reversal of recent monetary loosening – in the face of growing domestic price pressures as the economy recovers or as a result of global commodity price trends – could prove problematic. While interest rates are not expected to reach the heights of the late-1990s in the next few years, **current debt exposures mean that difficulties might arise even in relation to relatively small increases in borrowing costs, particularly if incomes do not rise in line**. This is particularly the case given that around four-fifths of mortgages are currently – quite rationally – subject to variable interest rates. One estimate suggests that default risks would be 'meaningfully heightened' if mortgage rates were to increase from their current level of 3.7 per cent to a more typical 5 per cent.

- Despite the relatively stable housing picture in the UK, prices *have* fallen, by some 20 per cent between 2007 and 2009, resulting in somewhere between 7 per cent and 11 per cent of mortgagors falling into negative equity. Moreover, the situation has looked much worse in some parts of the UK, with prices falling to half of their peak level in Northern Ireland for example. With residential property still looking overpriced, further corrections may yet follow.
- And, while employment has performed better than expected, other labour market pressures have instead come to the fore. For example, wage growth has become more sensitive to increases in unemployment in recent years. As such, **the magnitude of unemployment experienced in recent years has had a more chilling impact on the wages of those remaining in work than has been the case during previous downturns**. Likewise, *under*-employment has grown in importance, with around three million workers wanting to work more hours in 2012, up from two million at the start of the downturn.
- Finally, forbearance policies are by their nature time-limited. While they have already provided the necessary space for many debtors to recover their financial footing, future unwinding may come too soon for others.

### *Depending on trajectories for growth, income and public policy…*

In considering how household debt exposures will develop in the coming years, sequencing and pace will of course be key: if incomes return to the sort of growth recorded in the late-1990s, then the household sector may find itself able to support current debt levels even as interest rates rise or forbearance is removed. If however, borrowing costs rise more rapidly than incomes, then a very different scenario will unfold. A re-running of the income stagnation posted in the five years or so before the crisis would make such an outcome much more likely.

**It is entirely plausible that the future economic recovery will be jobs-light** (with firms simply increasing the hours of their currently under-employed workforce)**, wage-light** (with unemployment needing to fall below its pre-crisis level before significant real wage increases can be enjoyed by ordinary workers) **and debt-heavy** (with debt servicing costs rising even as incomes stagnate).

If those struggling to keep up form a sufficiently large group, then the sum of their individual challenges may have wider ramifications for our economic recovery. In this scenario, the policies we may want to explore and the resources we are prepared to commit to tackling problem debts begin to look very different. **This project will therefore consider the size of the potential problem under a range of trajectories for growth, incomes and public policy, in order to build an understanding of the sustainability of different options and the interventions that we might consider in order to minimise the consequences of our debt hangover**.

### *Producing a range of potential policy interventions to explore…*

If the metric of most concern to us is income-gearing (that is, the proportion of income spent on repayments), then deleveraging can occur via increases in incomes, reductions in the stock of debt or cuts in the costs of debt servicing.

While the wider work of the Resolution Foundation is heavily focused on the first of these, consideration of appropriate policies is beyond the remit of this project. In any case, prospects for the short-to-medium term do not look good. Even if relatively strong economic growth returns, there is no guarantee that it will feed through into the incomes of low to middle income households, particularly if the stagnation in earnings that was apparent in the pre-crisis years persists. Planned reductions in direct transfers designed to boost the incomes of those low to middle income households most exposed to problem debts means that fiscal solutions also look to be off-limits.

We will therefore focus our attention instead on mechanisms by which interventions designed to reduce the stock of debt or the cost of servicing it can be maintained or extended. We consider three broad – and non-exhaustive – themes below.

The most obvious relates to monetary policy. **While the MPC's primary remit is to maintain inflation in line with the government's target of 2 per cent, it must also support wider objectives for growth and employment**. If household incomes continue to stagnate in the coming years even as domestic and international inflationary pressures build, these two objectives could increasingly come into conflict. With the future role of monetary policy currently a source of international debate and the new Governor of the Bank of England setting out the case for nominal GDP targeting, **what is the right balance for monetary policy in the UK?** Slower interest rate adjustment could provide breathing space for some but would involve clear trade-offs. It is an area we will look at in more detail.

A second area worth considering is the interaction between the regulation of the financial sector and the drive for balance sheet repair among banks. Given that financial institutions account for nearly half of all UK debt and much of this relates to the troubled household sectors in the US and the eurozone, there is a clear need for deleveraging in this sector. Combined with increased regulation and tighter lending rules, the implication of this is that credit will continue to be tight – or more expensive – particularly for low to middle income households. To the extent that this reduces the refinancing options available to households or pushes them towards sub-prime or non-standard forms of credit then it could undermine the recovery of household finances. **A balance between responsible lending and affordable credit needs to be struck: what forms of support and flexibility can help banks to achieve this?** Again, we will consider options in this area as the project develops.

A final topic that we explore here – and will return to in the future – is debt restructuring. While some borrowers may be able to take advantage of today's low interest rates to lock themselves into deals designed to minimise their mortgage burdens beyond the point at which interest rates start to rise, not everyone is able to do so. Costs associated with exiting existing deals may form one barrier, while lower income households and those with the least equity – including those in negative equity for example – may not be considered safe enough bets. **Various debt restructuring options have been advanced in the US, designed to ease the burden for borrowers while at the same time removing some bad debts from lenders' books. Can similar options work in the UK?**

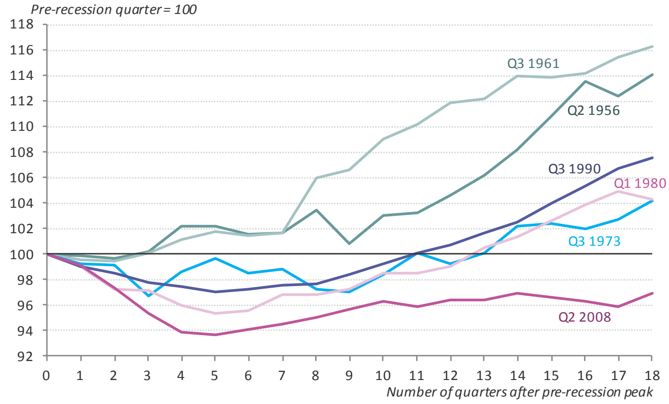
The details of potential policies that might sit under each of these broad themes would clearly need very careful consideration, and we are not recommending that any be taken forward at this stage. Indeed, we still need to better understand the problem in order to determine the extent to which household debt might move from the micro to the macro stage. That work will form the next step of this year-long project.

## Introduction

Across a range of countries and timeframes, the evidence is pretty clear that financial crises result in deeper, more prolonged downturns than standard economic recessions.[1]

This certainly seems to have been the case in the UK, with Figure 1 highlighting the persistence of the current downturn. In contrast to other post-war recessions, GDP remains some 3 per cent below its previous peak more than four years on from the start of the crisis.

**Figure 1: Comparative economic trajectories following post-war recessions: *UK***




Source: ONS, *ABMI*

The traditional explanation for such protracted rebounds is that financial crises are usually preceded by rapid expansions of debt relative to national income, and are followed by credit squeezes that drag down on recovery. It is assumed that those sectors of the economy that have become over-indebted – whether households, corporations or banks or government – need to go through a period of deleveraging before economic growth can return.

Such an unwinding is far from simple though, particularly where over-indebtedness is evident in several sectors of the economy at the same time. The policy choices for those countries most affected are stark. A rapid or forced correction can be painful, with governments slashing spending, companies going to the wall and families facing bankruptcy and repossession. A more gradual process may avoid some of these high profile and relatively concentrated consequences, but might instead impact on growth for a number of years, producing an anaemic recovery that holds back a larger share of society. Not surprisingly then, determining how best to manage this process of deleveraging has become one of the biggest economic debates of the post-crash period.

In the UK context, plotting the optimum path requires an understanding of three things. First, the debt picture that developed in the years before the financial crisis: how and why did debt grow and how worried do we need to be? Secondly, the distribution of debt exposures and vulnerabilities today: who owes all the money and how close to the edge are they? Thirdly, the potential implications of different trajectories for growth and policy options: what happens when interest rates rise and what are the trade-offs associated with intervention?

Over the course of this new project – *Deconstructing Debt* – we will dig deeper on all of these issues. We will consider debt in the broadest sense, but will be most concerned with the household picture, looking both at the level of individual families and at the impact of household debt exposure on the wider macro economy.

In this first paper, we review existing evidence and bring together arguments about the extent of the UK's debt problem.

- We look in **Section 1** at the role played by debt in sparking the global financial crisis and, more specifically, at the credit conditions and practices underpinning developments in this country.
- In **Section 2** we focus on the period since the crash, looking at data on the distribution of debt exposure across households and at the extent to which credit has morphed into problem debt for families.
- We consider the coming years in **Section 3**, looking at what the household debt hangover and deleveraging means for wider economic recovery, and at the broad areas of policy that we may want to explore as the project develops.
- We end with some **conclusions** and thoughts about further research.

# 1 The debt boom and the great crash

By way of context for our later discussion about the level of debt exposure in UK households and the implications of this in the coming years, we look in this section at pre-crisis trends in overall debt levels and at borrowing at the household level in particular. Before reviewing the empirical evidence from the UK, we look briefly below at accounts of the extent to which the growth of debt was one of the causal factors behind the global crash.

### *Debt and the global crash*

Prior to the financial crisis that started to spread around the world from 2007, most advanced economies had enjoyed more than a decade (probably two decades in the case of the US) during which steady growth in GDP coincided with low and stable inflation. This 'Great Moderation' is thought to have owed as much to global market forces (such as the development of China and other economies which produced a supply of cheap manufactured goods that helped to hold down prices in established economies even as demand soared) as to deliberate domestic policy choices (such as the adoption of central bank independence and inflation-targeting).[2]

Ultimately however, the stability unravelled spectacularly. In common with other financial crises, the roots of the crash lay in a rapid expansion of private sector (households, firms and banks) debt relative to national income and associated over-valuation of assets, alongside irresponsible risk-taking by the financial sector: what Adair Turner has termed "a boom in debt, in leverage and in complexity".[3]

For some, the Great Moderation itself helped to fuel this cycle.[4] Aligned as it was with a falling cost of borrowing (driven in part by capital inflows from emerging markets such as China, but also by deliberate policy decisions), the stability and steady growth of the period is thought to have encouraged exuberance in credit markets, as predicted by Hyman Minsky's 'financial instability hypothesis'.[5] With investors frustrated by low interest returns taking greater risks in a 'search for yield' and households, firms and banks more generally making decisions based on misplaced assumptions about the endurance of prevailing macroeconomic conditions,[6] credit demand, supply, complexity and risk increased.

Rising asset prices, particularly residential properties, made the credit boom appear affordable and partially hid the degradation of credit standards. However, rising defaults on US sub-prime mortgages eventually spilled across global financial markets. Complex securitisation[7] markets broke down and confidence in the financial system disappeared as it became apparent that banks' balance sheets and asset portfolios were suffering from fundamental structural weaknesses.

Financiers are clearly implicated in this account of the collapse: credit supply was simply too loose. Others point to excessive credit demand, with households in particular borrowing irresponsibly to fuel consumption (and particularly home buying).[8] On both sides of this equation though, economists and regulators also appear culpable. On the supply-side, there lies the accusation that the financial sector was given too much leeway.[9] On the demand-side, some have contended that this policy inaction represented more than mere complacency, that it was instead a deliberate attempt to support the living standards of low and middle income households against a backdrop of stagnating wages.[10]

In truth, while the above account helps to explain the development of the *global* crisis, the picture is more nuanced at the level of individual countries. Variances in credit conditions and practices and in domestic demand and structures mean that the causes and consequences of the crisis have played out somewhat differently across countries. Below, we consider recent trends in the UK.

### *Debt trends in the UK*

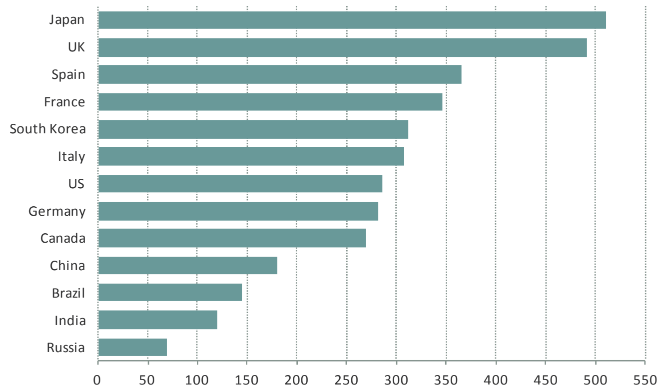
In the two decades prior to the financial crisis, the total stock of public and private debt in the UK came close to tripling as a share of GDP, rising from 165 per cent in 1987 to 466 per cent in 2008. As a result, Figure 2 shows that the UK looked to be one of the most indebted countries in the world as the recession unfolded, causing some commentators to conclude that it was particularly poorly placed to recover from the crisis.

In reality of course, the overall debt stock provides only one measure: the types of debts held, wider economic prospects and the ongoing ability of borrowers to service the associated costs also matter.

Figure 3 splits the overall debt-to-GDP trend ratio over the last 25 years by sector. It shows the ratios increased significantly across the private sector (that is, all sectors other than general government), but that the expansion was most marked among financial institutions.

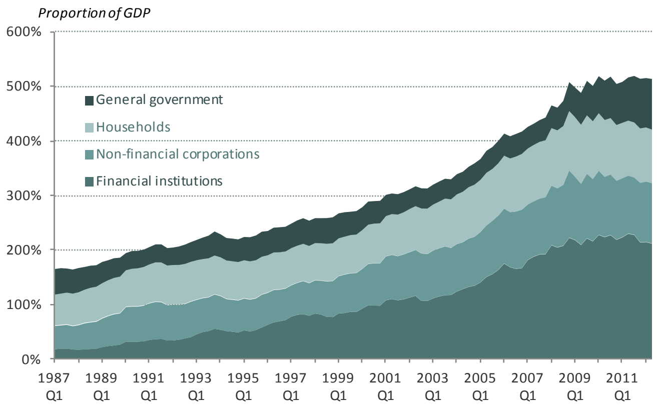
As such, banks held the largest share of total debt at the start of the recession (45 per cent), with households (23 per cent) and non-financial firms (23 per cent) accounting for a similar combined share and general government debt making up the remaining 9 per cent.

**Figure 2: Private and public debt as a share of GDP in selected countries: *2009-2011***




Source: McKinsey Global Institute featured on *The Economist Daily Chart*, 19 September 2012

**Figure 3: Stock of debt as a share of GDP by sector: *UK 1987-2012***




Notes: Total varies from the one presented in Figure 2 due to slight definitional differences. Figures cover credit market instruments (loans and bonds) but not physical assets, accounts payable or short-term loans within sectors. Financial institutions data exclude financial derivatives. Household sector includes non-profit institutions serving households (NPISH)

Source: ONS, *United Kingdom Economic Accounts*, series NNPP, NOOG, NOPI, NLNC, NLNJ, NLNM, NLNS, NLZI, NLZM, NLZV, NLZY, NNKW & YBHA

What does this bank debt consist of? In large part, it is loans to foreign households. Ben Broadbent has noted that overseas assets contributed six times more to the growth of UK-owned banks' aggregate balance sheets than did loans to the domestic non-financial private sector (that is, households and firms) over the course of the 2000s, with exposures to foreign debts increasing from around £500 billion in the 1990s to £2,500 billion in 2008. As stocks, foreign debts are around twice as large as domestic non-financial private sector loans.[11]

In this regard, the UK looks quite different from many of the other countries set out in Figure 2. For example, Japanese debt is primarily held by the government (bringing with it fiscal implications), while US debt has been more weighted towards households (with consequences for domestic demand). In contrast, the UK looks more exposed to future developments around the world, particularly in the US and the eurozone.[12]

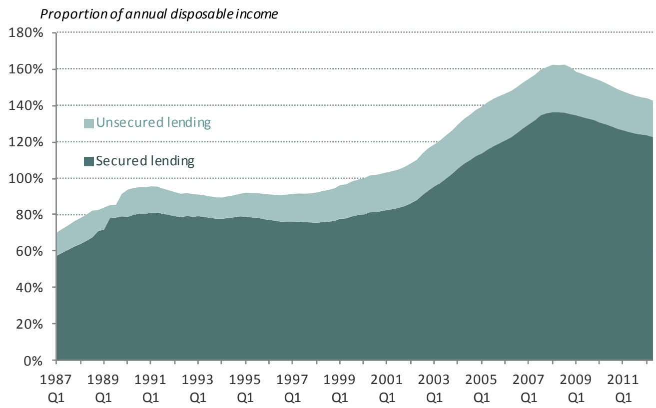
That is not to say that increases in other forms of borrowing did not also play their part in the UK's pre-crisis credit boom. Although debt-to-GDP increased most rapidly in the financial institutions sector (from 18 per cent in 1987 to 209 per cent at the start of the recession), there were also significant movements in the household (from 57 per cent of GDP to 106 per cent) and non-financial corporation (from 43 per cent to 109 per cent) sectors. Below we look in more detail at trends in lending to households over this period.

### *Household borrowing and the housing bubble*

Figure 4 delves a little deeper into the household debt trend set out above, detailing the split between secured and unsecured lending to individuals in the period from 1987.

It shows that the overall lending-to-household disposable income ratio was relatively flat through the 1990s, before taking off from around 2002. Over the period as a whole, the ratio increased from 70 per cent in 1987 to a peak of 163 per cent in Q3 2008.

**Figure 4: Stock of household debt as a share of disposable income: *UK 1987-2012***



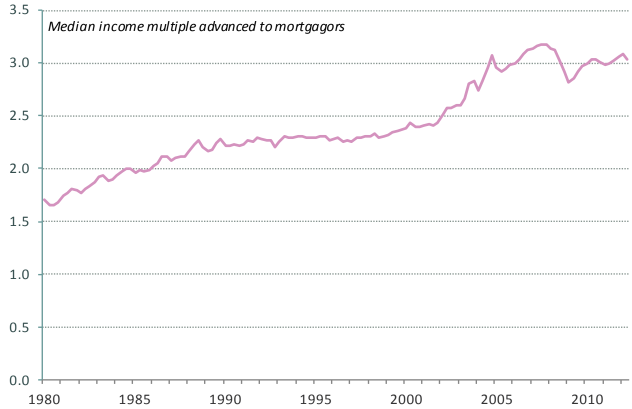

Sources: Bank of England, series VTXK & VZRI; and ONS, *United Kingdom Economic Accounts*, series RPHQ

Secured lending has consistently accounted for the overwhelming majority of household borrowing (84 per cent at the 2008 debt peak), though trends in the two forms of lending have diverged in certain periods. The unsecured debt-to-income ratio increased steadily from the mid-1990s, doubling from 12 per cent in 1993 to a peak of 27 per cent in 2008. In contrast, the secured debt-to-income ratio *fell* slightly during the 1990s, from 81 per cent in 1991 to 76 per cent in 1998. It subsequently increased rapidly though, jumping to a peak of 136 per cent at the start of 2008. The overall household debt-to-income ratio has therefore been dominated by movements in secured borrowing.

In common with household borrowing in several other countries, many commentators have argued that the rapid expansion of the 2000s was unsustainable, with some borrowers stretching themselves and experiencing repayment difficulties even before the credit crunch.

For example, as Figure 5 shows, the median income multiple advanced to mortgage borrowers increased over the period, but rose particularly sharply from 2002 onwards. Mortgage arrears and home possessions also shifted onto an upward trend from this point.[13]

**Figure 5: Median income multiples advanced to mortgagors: *UK 1980-2012***




Source: Council of Mortgage Lenders, *Table ML4*

For many, broader developments in mortgage lending can be traced back to financial deregulation in the 1980s.[14] Where previously mortgages had been provided exclusively by building societies with conservative lending practices and an interest rate cartel, deregulation led to the arrival of banks and other specialist lenders, market-based interest rates, looser credit and the growth of securitisation. While the housing crash of the early 1990s set this trend back somewhat, the shift towards looser credit gained pace once recovery was secured, with the number of different mortgage products on the market peaking at close to 12,000 in 2007.[15]

Prior to the credit crunch, one-fifth of the mortgage stock was funded via securitisation with some lenders having much higher rates than that. Where previously mortgages were largely based on the recycling of retail deposits, UK providers became much more reliant on wholesale markets to access funding. Sub-prime lending proved particularly attractive to suppliers, with highly incentivised senior executives focusing their energies on rapidly growing their market share.[16] In the same period, the Enterprise Act 2002 made it easier for individuals to recover from bankruptcy and was associated with a surge in personal insolvencies. Automated credit scoring and the growing role of mortgage brokers – whose incentives are weighted more towards short-term deals that provide plenty of churn – further heated the market.

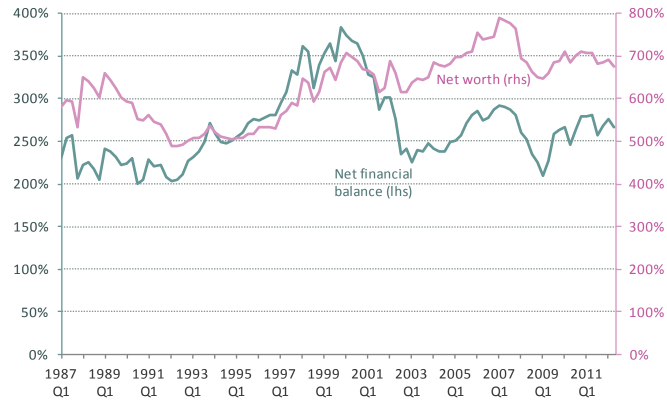
As a result of these shifts, the proportion of mortgages repaid on an interest-only basis increased from 13 per cent in 2000 to around one-third in 2007, with one-in-four mortgages issued in that year being on an interest-only basis.[17] Similarly, borrower income was unverified in nearly half of the mortgage agreements established in 2007.[18] Lending to adverse credit borrowers (i.e. those with previous arrears, County Court Judgments, Bankruptcy Orders or Individual Voluntary Arrangements) accounted for between 3 and 4 per cent of the stock of mortgages by the end of 2007.[19]

Not all economists accept this assessment of an overstretched household sector however. For example, Antonio Fatas has argued that the important metric is not gross debt figures but net wealth: most fundamentally, one man's borrowing is another man's saving.[20]

It is a sentiment echoed by Ben Broadbent with specific reference to the UK. He acknowledges that pre-crisis trends in unsecured lending to households looked risky and that, taking the non-financial private sector more generally (households and firms), commercial property appeared to be overvalued, but he argues that overall growth in liabilities was largely matched by growth in assets, meaning that the net financial balance (financial assets minus liabilities) of households and firms moved very little.[21] Consideration of the data appears to support this view.

Figure 6 shows that the net financial balance of households fell sharply between 2000 and 2003 (reflecting stock market performance), but that it subsequently improved steadily in the lead up to the 2007 crash. If we include *physical* assets (primarily housing), then the picture appears even more reassuring: net worth increased relatively steadily from the mid-1990s, rising from 500 per cent of disposable income to a peak of almost 800 per cent in 2007.

**Figure 6: Household financial and physical balance as a proportion of disposable income: *UK 1987-2012***




Notes: 'Tangible assets' data underpinning net worth series is produced on annual basis and latest figures relate to 2010. Figures for 2011 and 2012 are therefore based on the 2010 total. As is common practice, these household figures also include non-profit institutions serving households (NPISH).

Source: ONS, *United Kingdom Economic Accounts*, series NZEA, CGRP & RPHQ

Of course, this finding reflects the fact that house prices were rising over the period: at the heart of the Broadbent argument lays a contention that the growth in UK household debt in the 2000s was a product of the housing bubble rather than the causality running the other way around. On this, the evidence is much less clear.

It's certainly true that the bursting of the bubble did not hit house prices as hard in the UK as in some other countries such as the US, Spain and Ireland, suggesting that there was less froth about here. In contrast to these other markets, UK house prices were pushed in part (and have since been held up) by an under-supply of property. And the UK market looked less risky for other reasons too: for example, lenders are unable to pursue borrowers for anything other than the collateral on their mortgage debts in many US states (the debt is 'non-recourse').

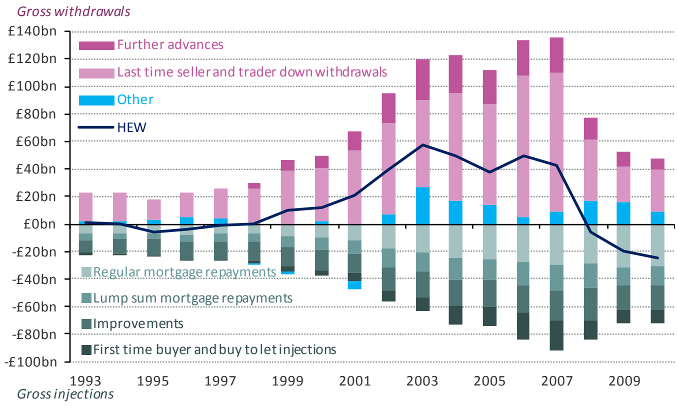
However, there *was* a bubble in the UK and house prices *have* fallen since it burst. In explaining this, it's difficult to ignore the argument that housing demand and therefore prices were stoked by the provision of high loan-to-value mortgages with no income verification. And obviously the household picture could come to look very different if UK house prices were to suffer further correction, as some believe may happen.[22]

What this focus on overall financial balances and net worth *does* highlight, however, is that additional secured borrowing was not simply being used by households to fuel consumption as is sometimes suggested. Instead, the liabilities built up against property in this period were largely matched by an increase in financial assets such as savings funds and stocks. By looking at trends in housing equity withdrawal (HEW), which measures the difference between gross withdrawals and gross injections of housing equity by the household sector, we can get some sense of the extent to which equity was being spent rather than saved in the pre-crisis period.

Figure 7 shows that HEW increased significantly during the first half of the 2000s. That is, in aggregate, households withdrew more equity from housing than they injected.

However, by far the largest share of overall withdrawals was in the form of sellers downsizing or exiting the market. Although it is by no means a perfect proxy, we might assume that the majority of such households are in, or getting ready for, retirement and are therefore more likely to have invested their funds in savings rather than consumed them immediately.

**Figure 7: Value and composition of housing equity withdrawal: *UK 1993-2010 (current prices)***




Source: K Reinold, "Housing equity withdrawal since the financial crisis", *Bank of England Quarterly Review*, 2011 Q2

Again the connection is imperfect but, if we want to focus on withdrawals made in order to provide cash for spending on goods and services, 'further advances' – that is, additional loans made against already mortgaged properties – are likely to provide a better indicator.[23] The value of these withdrawals *did* increase over the same period – demand for consumption may have played *some* role in the growth of HEW – but they were of a very different order of magnitude.

These trends appear to suggest that the majority of additional funds pouring into housing over this period were being transferred from buyers (younger households) to sellers (older households). House prices were overvalued and credit was overly loose but, for the majority of households stretching themselves with mortgages, the aim was simply to join or move up the housing ladder, rather than fuel a consumption binge.

It is this last point which goes to the heart of why household debt continues to be a concern, *irrespective of the aggregate balance sheet position*. Even if increases in liabilities have been matched by growing asset values over the past decade or so (ignoring for a moment the argument about which side of the balance sheet drove the other), those holding the debts are clearly not the same as those holding the wealth. In short, net worth looks much less encouraging when viewed at the individual household level.

Broadbent himself acknowledges this. As he points out, the transfer from those moving onto or up the housing ladder to those moving down it may unwind itself over time, via bequests, but it may not: the old may yet choose to consume their cash funds. Indeed, this starts to look more likely when we consider increases in longevity, rising care bills and years of under-saving for retirement.

Given that it is lower income pensioners who are most likely to need to draw down their housing equity in this way, we might expect their (often) lower income families to be less likely to benefit from inheritance. Relying on bequests as a means of re-transferring funds back to the young may therefore have implications for inter-generational inequality.

And of course, even if the transfer *is* unwound over time, today's debts still need servicing in the meantime. The uneven distribution of assets and liabilities across households means that the crash and wider economic downturn is likely to have left those on the wrong side of this divide exposed to problem debt. We turn to consider such issues in the next section.

## 2 Household debt exposure since the crash

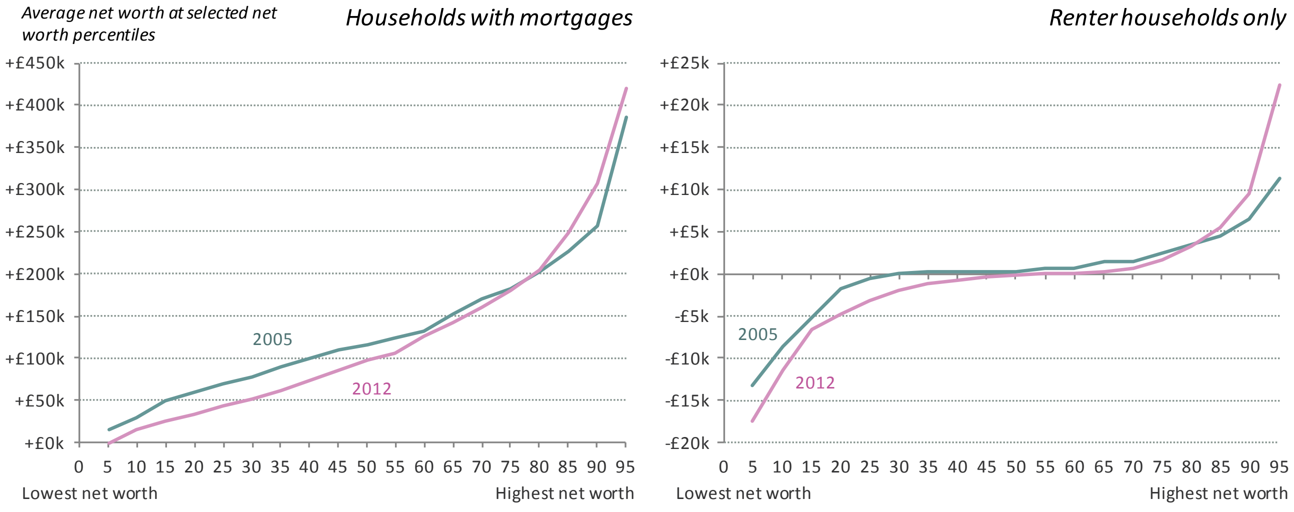
In Section 1 we looked at the debt boom of the decade or so preceding the global financial crisis, considering the role played by debt in general and by household debt more specifically in bringing about the crash. Next we look at the legacy of that debt boom in the post-crash environment, focusing on the distribution of debt across households and the extent to which the fall out has been postponed rather than forestalled.

### *The growing inequality of net worth*

Data from the Bank of England shows that, while liabilities have become more evenly distributed across households in recent years (that is, access to credit has stretched more widely), assets have been increasingly concentrated (that is, a growing share of households hold relatively few assets). As a result, net balances have come to look more unevenly skewed.

These trends are illustrated in Figure 8. Looking first at households with outstanding mortgages, the left-hand chart shows that the distribution of net worth (financial and physical assets minus liabilities) was steeper in 2012 than in 2005. That is, being at the top of the distribution (ordered by the overall size of net worth) looked better in the latter period, while being at the bottom looked worse. If we look instead at renter households, we observe a similar pattern. The right-hand chart in Figure 8 shows that net worth was lower across the bottom three-quarters of the distribution in 2012 (and negative for the bottom half of renter households) but again, higher at the top.

**Figure 8: Distribution of net worth across households: *GB 2005 & 2012***




Notes: 'Net worth' represents 'total assets' (financial assets including bank/building society saving accounts or bonds, stock and shares, ISAs, Child Trust Funds, NS&I account/bonds and premium bonds, but excluding pensions, and the value of the main family home (it does not account for second homes or property that is rented out)) minus 'total liabilities' (any mortgage and unsecured debt). Figures are not adjusted for inflation. The 2012 survey was conducted online, while the 2005 one was face-to-face; disclosure, and therefore results, may be affected slightly.

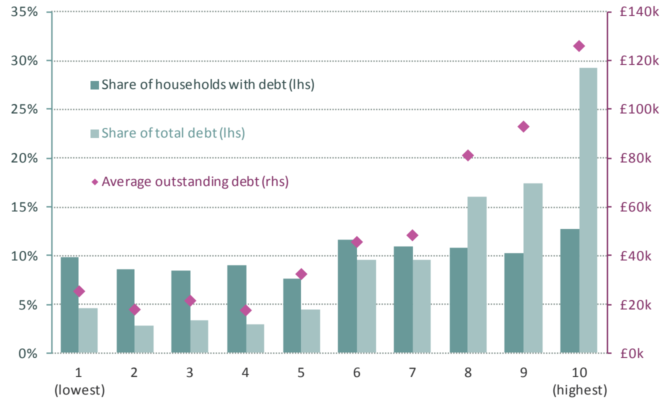
Source: Bank of England, *NMG Consulting Survey 2012 & 2005*

The data also confirms the transfer of wealth from younger households to older ones, with the ratio of median net worth among older mortgagor households (aged 45+) to median net worth among young mortgagor households (18-34) rising over the period from 1.9 to 3.7.

Focusing instead just on liabilities, Figure 9 details the distribution of debtors and total debt (secured and unsecured) in 2011 across equivalised gross income deciles.[24] It also sets out average debts among those with some outstanding debt. While debtors are relatively uniformly distributed across the income spectrum, it shows that the share of total debt and, by implication, average debts are much higher towards the top of the distribution.

So, while 9 per cent of all households with debt are located in decile 2 for example, these families account for just 3 per cent of all household debt and owe an average of £17,900. In contrast, the 13 per cent of debtors located in the top income decile have average debts of £127,000 and account for 29 per cent of the total.

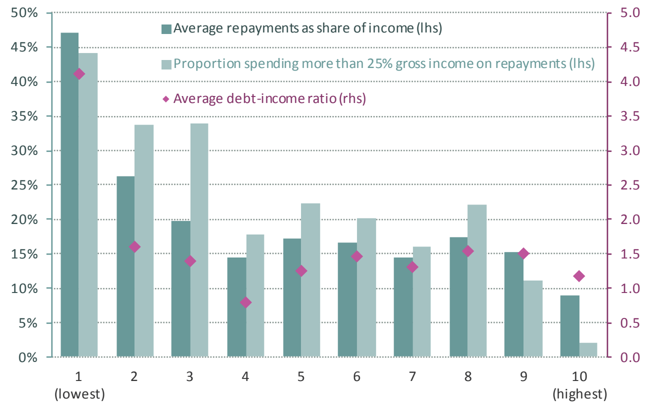
**Figure 9: Distribution of debt by equivalised gross income decile: *GB 2011***




Source: Bank of England, *NMG Consulting Survey 2011*

However, Figure 10 highlights the extent to which debt *exposure* is higher as we move down the distribution. It sets out debt-to-income and debt repayment-to-income (income-gearing) ratios in each decile and shows, for example, that households with debts in the bottom decile have more than four times their annual income outstanding and make repayments that account for nearly half (47 per cent) of their monthly gross income.

**Figure 10: Distribution of debt exposure by equivalised gross income decile: *GB 2011***




Source: Bank of England, *NMG Consulting Survey 2011*

In contrast, debtors in the top income decile have total outstanding debt equivalent to 1.2 times their annual income and make repayments that equate to just 9 per cent of their monthly gross income.

At the extremes, while just 2 per cent of debtor households in decile 10 spend more than one-quarter of their gross income on repayments, in decile 1 the figure is 44 per cent.

Not surprisingly given lifecycle patterns, repetition of this analysis by age shows that debt exposure is highest among younger groups. For example, the average debt-to-income ratio reported in 2012 among households headed by someone aged 18-44 was 1.3, compared with 0.7 among those aged 45 and over.

### *The distribution of credit restrictions*

In addition to being more exposed to debt than their higher income counterparts, low to middle income households are also more likely to be facing difficulties associated with restricted access to credit.

Even during economically healthy periods, low pay and insecure work (such as temporary or zero hour contracts) make access to credit very important to many low to middle income households. Finances can be strained by everyday occurrences such as broken washing machines or unexpectedly large bills, as well as by seasonal pressures such as Christmas, and forward planning is not always realistic for the most stretched families.[25]

In the current climate, such concerns are perhaps even starker. Tight credit conditions also reduce the ability of debtors (particularly those in the low to middle income group) to renegotiate or restructure their debts to ensure they are taking advantage of today's low interest rates.

Figure 11 sets out the proportion of households in each income decile saying that they faced some form of credit constraint in 2011. It captures both those who *perceive* constraint – that is, they feel unable to spend money because they are concerned about their continued access to credit – and those who face *actual* constraint – that is, those facing prohibitively large costs of extra borrowing.

It shows that such constraint is highest towards the bottom of the income distribution, with one-in-three households in the bottom (32 per cent) and second (32 per cent) deciles facing either perceived or actual constraint. In contrast, just one-in-eight households are in this position in the top income decile (12 per cent).

**Figure 11: Credit constraint by equivalised gross household income decile: *GB 2011***


Source: Bank of England, *NMG Consulting Survey 2011*

As credit conditions have tightened and incomes have been hit by recession and rising unemployment, there is anecdotal evidence that the use of non-mainstream lenders has increased, moving its way up the income distribution. One estimate from Aviva suggests that around 4 per cent of working-age families already use pawnbrokers and 6 per cent use payday loans,[26] while research from Shelter states that around one million households used payday loans to cover housing costs during 2011.[27]

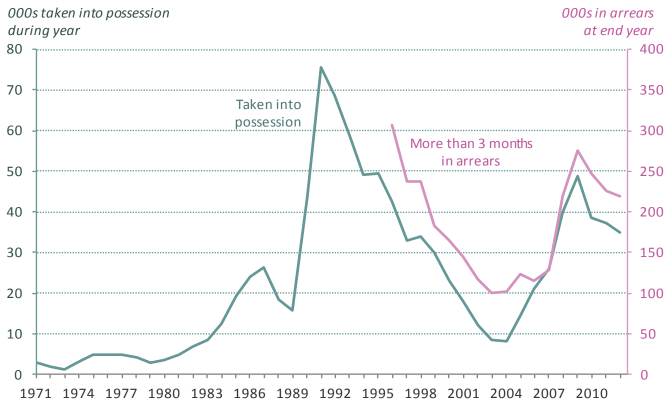
### *Why don't things look worse?*

The evidence set out above would appear to point towards a growing problem of exposure to debt among low to middle income households going into the financial crisis.

However, Figure 12 shows that mortgage arrears and home possessions among UK households have remained surprisingly low since the start of the downturn, suggesting that borrowers have largely been able to keep up with their commitments.

There *was* a clear spike in both measures from 2007, with a steady increase having taken place from around 2004. As such, the number of households more than three months behind with payments on their mortgage doubled from its low of 56,000 in 2003 to a peak of 117,000 in 2008, and the number of properties taken into possession in each year similarly jumped from 8,200 to 49,000. However, these peaks fall far short of the levels recorded in the 1990s and numbers have been falling more recently.

**Figure 12: Number of mortgage arrears and houses taken into possession: *UK 1971-2012***




Note: 2012 figures are author's estimates based on data for Q1-Q3.

Source: Council of Mortgage Lenders, *Tables AP1 & AP4*

Household debt in the UK has therefore not yet produced the scale of defaults seen in the crisis countries of the EU (Spain, Greece, Portugal and Ireland) or the US. While some might point to this as evidence of the relatively relaxed position we might want to take in relation to household debt, it is likely to be the product of four – inter-related – factors:

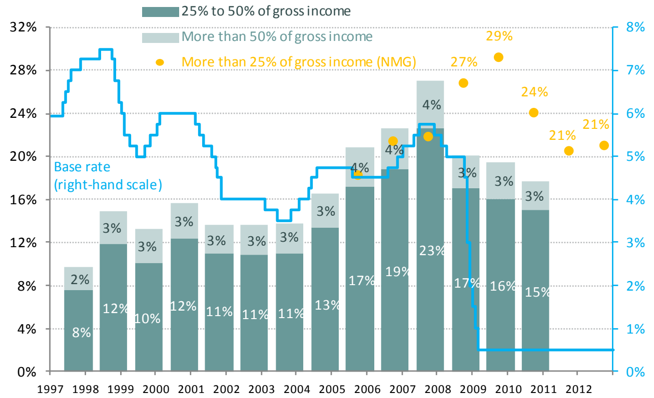
- monetary loosening;
- a relatively small house price correction;
- the surprising resilience of employment; and
- forbearance.

### *Monetary loosening*

First, and perhaps most importantly, sharp reductions in the Bank of England's base rate in the wake of the financial crisis have helped keep down the cost of servicing debt and meant that some borrowers have benefited from reductions in their repayments that have helped to offset income falls. However, falling interest costs have not necessarily eased the situation as much as we might expect.

Figure 13 tracks changes in the proportion of all mortgagors spending more than one-quarter of their gross income on repayments in the period since 1997. Using data from the English Housing Survey (EHS) it shows that, despite falls in the base rate, house price inflation during the 1990s and 2000s increased the number of such households from 10 per cent in 1997-98 to 14 per cent in 2003-04. As interest rates subsequently increased, the proportion of mortgagors in this position rose still further, peaking at 27 per cent in 2007-08. This figure fell over the next two years, as the base rate plummeted to its historic low.

**Figure 13: Proportion of mortgagors spending more than 25 per cent of their gross income on repayments: *England/GB 1997-2012***




Sources: CLG, *English Housing Survey* & Bank of England, *NMG Consulting Survey*

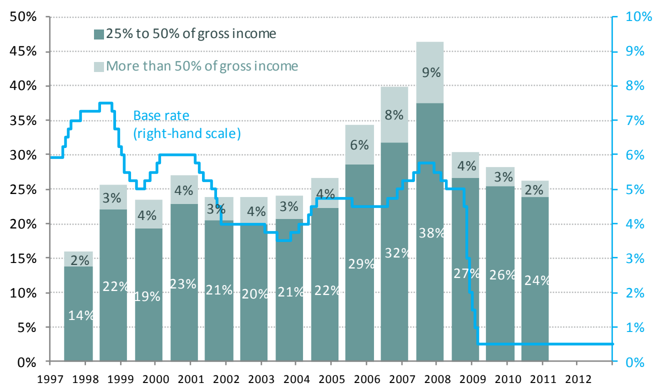
However, it remained – at 18 per cent in 2010-11 – much higher than in 1998-99 when the base rate was some 700 basis points higher.

The situation may be even starker. Consideration in Figure 13 of data drawn instead from the timelier (but smaller and more geographically broad) NMG survey for the Bank of England suggests that the proportion of highly geared mortgagors continued to *increase* in 2009 and 2010, even as the base rate plummeted. According to this source, at the end of 2012 – by which time many fixed rate deals established during the higher interest rate period had come to an end – the proportion of families spending more than one-quarter of their gross income remained at 21 per cent. This equates to around 2.4 million households, meaning that a significant number of families may face repayment difficulties once interest rates eventually rise.

Not surprisingly, the figures again look worse for low to middle income households, as shown in Figure 14.

Nearly half of the mortgagors in these households, were spending more than one-quarter of their income on repayments immediately before the crash. Despite a significant decline in the subsequent period, the proportion of such households again remains higher than in the 1990s. Even in 2010-11, one-quarter (26 per cent) of low to middle income households were in this position.

**Figure 14: Proportion of low to middle income mortgagors spending more than 25 per cent of their gross income on repayments: *England 1997-2011***




Sources: CLG, *English Housing Survey*

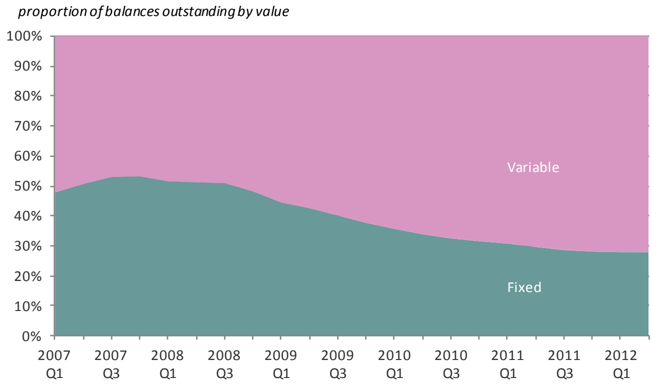
Clearly the persistence of high income-gearing reflects the significantly bigger stock of debt built up in the latter period, but it is also likely to be driven in part by a widening of the spread between the base rate and average mortgage rates as the former has fallen. This increase in spread has, in turn, been caused by ongoing balance sheet weaknesses, regulatory pressures and wholesale funding costs.

The situation may be made more acute by the high proportion of borrowers with floating interest rates. Given the historically low level of the base rate, borrowers have rationally opted to take out or remain on variable loans or ones that track the official rate. The savings associated with this option can be substantial: in Q2 2012, the average fixed-deal interest rate stood at 4.65 per cent, compared with an average variable rate of 2.99 per cent (although the gap between these two averages has been narrowing slowly over time).[28]

As Figure 15 shows, the proportion of mortgage balances repaid at a fixed rate has fallen from over half (53 per cent) at the end of 2007 to just over one-quarter (28 per cent) in 2012.

Clearly, once interest rates start to rise, many borrowers will seek to protect themselves by shifting to fixed rate deals. It is not yet clear however, just how easy that will prove, given the large number of mortgagors involved and ongoing credit tightness.

**Figure 15: Distribution of outstanding mortgage balances by type of interest rate: *UK 2007-2012***




Source: FSA, *Statistics on Mortgage Lending*, MLAR Table 1.22

### *House price stickiness*

As discussed in Section 1, a second factor underpinning the relatively small number of defaults recorded since the financial crash is that house prices have fallen by significantly less in the UK than in countries such as Spain. Construction booms in many countries outside of the UK led to spare capacity: when the bubbles burst and house prices fell, borrowers found themselves saddled with debts corresponding to assets that had fallen dramatically in value. In contrast, rising prices in the UK housing market prior to the crisis were underpinned by *under*-supply of new homes. When the credit crunch struck, house values were subject to relatively small corrections.[29]

Figure 16 illustrates this point. It sets out the pre- and post-crash trajectory of house prices relative to their peak in a range of countries and over a variety of time periods. It shows how the recent UK experience produced a much smaller reduction in prices and a speedier rebound than was apparent in many other instances.

As such, negative equity and the associated problems of refinancing, mobility and confidence, has been less of an issue for UK households than has been the case elsewhere.

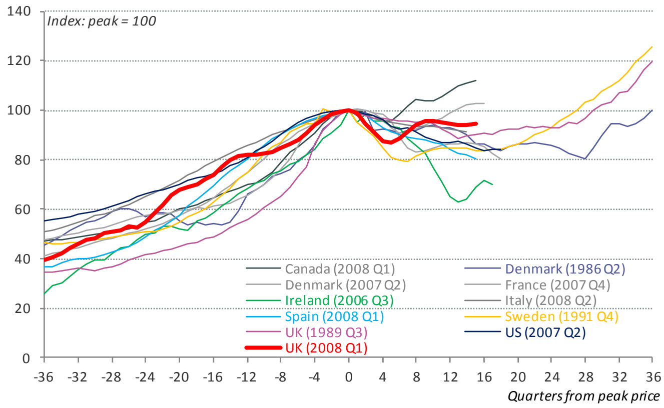
Not that the UK was unaffected. Nominal house prices fell by around 20 per cent between 2007 and 2009, resulting in somewhere between 7 per cent and 11 per cent of mortgagors falling into negative equity.[30] But the magnitude of the losses experienced by most of these households remained relatively small, and the overall incidence has been much higher elsewhere.

Analysis by the OBR suggests that this house price resilience has meant that the household sector here looks less stretched than in the US.

Figure 17 shows that household debt-to-equity ratios (that is, the proportion of asset values funded via borrowing) were comparable (and surprisingly flat) in both countries pre-crisis.

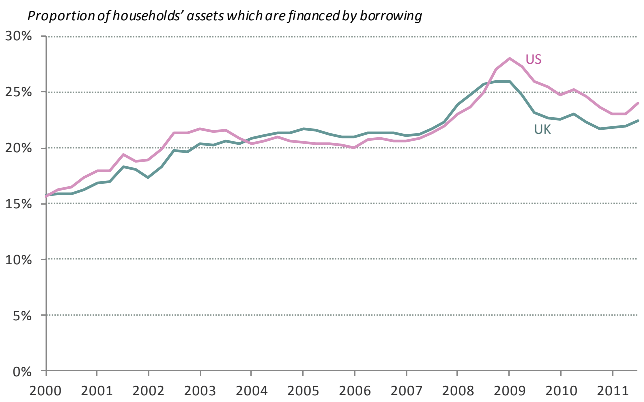
Debt subsequently accounted for larger shares as asset prices fell, but the smaller house price correction in the UK means that the aggregate position here now looks a little healthier than in the US (though it is still high by historic standards).

**Figure 16: Changes in nominal house prices in selected countries and periods**




Source: Federal Reserve Bank of Dallas, *International House Price Database*

**Figure 17: Household debt-to-equity ratios: *UK & US 2000-2011***



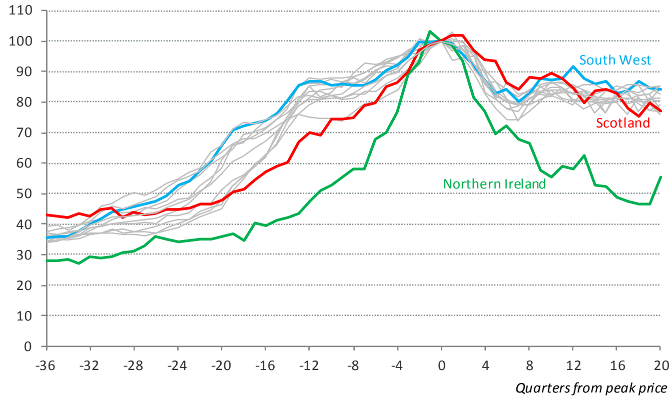

Notes: Debt-to-equity ratios highlight the proportion of households' assets which are financed by borrowing.

Source: OBR, *Fiscal and economic outlook*, March 2012, Box 3.3

This approach fails to account for differences across the UK, however. Consideration of regional trends suggests that *some* localities may be subject to the same sorts of constraints facing homeowners in the US and elsewhere.

Figure 18 highlights the rapid growth and subsequent crash in Northern Irish house prices for instance, with the region looking more like its Irish neighbour than the rest of the UK. Similarly, while the initial drop in prices in Scotland was smaller than in other parts of the country, the trajectory has been steadily downwards ever since.

**Figure 18: Changes in nominal house prices in UK regions with reference to recent peak: *1998-2012***




Source: Lloyds Banking Group, *Halifax House Price Index*

## *Labour market flexibility*

Crucially perhaps, UK households look to be less affected by the implications of house price falls and negative equity than their counterparts in the US and Spain because of the third factor listed above: *employment*. Relative to the size of the economic downturn, unemployment has not reached expected levels and has been falling back even as the economy has continued to contract. As such, fewer families have missed repayments or felt obliged to sell their homes to compensate for losing their jobs. More generally, lower than anticipated unemployment rates have meant that household incomes – and therefore the ability to service debts – have held up better than expected.

However, this welcome but surprising performance of unemployment appears to have come at the cost of lower growth in real earnings. Real-terms wages have fallen during the latest downturn, rather than simply levelling off as they did during the recessions of the 1980s and 1990s. Research undertaken for the Commission on Living Standards finds that the sensitivity of real wages to unemployment has increased in recent years, meaning that a hypothetical doubling of unemployment would now reduce real-terms median earnings by £2,600 a year, compared with £1,600 a year in earlier periods.[31] In addition, *under*-employment appears to be a growing problem. According to the ONS, three million UK workers (one-in-ten of all workers) are unable to work as many hours as they want, up from two million at the start of the downturn.[32]

Taken together, these trends suggest that remaining in work since the crash has not been a guarantee that debts will remain manageable. They also increase the likelihood that economic recovery will have only a limited effect on employment (because firms already have staff who are under-employed) and on wage growth (because the sensitivity of real wages to unemployment mean that the proportion of people out of work needs to fall below its pre-crisis norm before any meaningful real wage growth is recorded), meaning that households may not be able to rely on economic growth to improve their debt positions.

### *Forbearance*

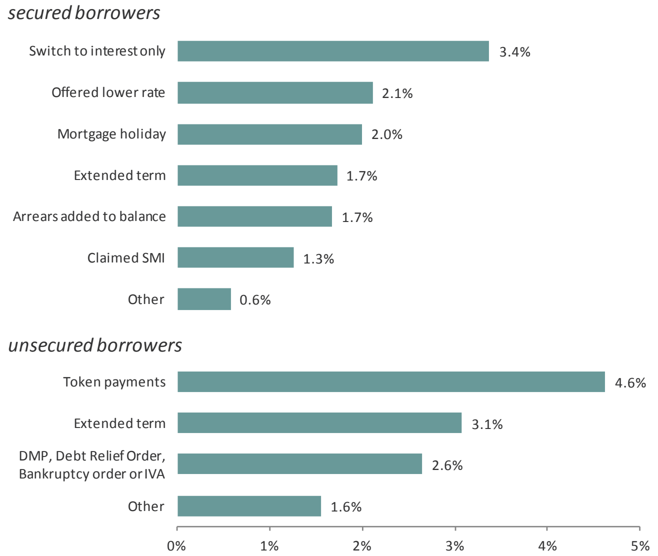
The final factor that is likely to help explain the relatively low number of household debt defaults reported to date is the use of creditor forbearance. For example, the FSA has estimated that between 5 and 8 per cent of mortgages were subject to some form of forbearance.[33]

Figures from the Bank of England suggest that the proportions may be a little higher still. It found that 12 per cent (or 1.4 million) of households with secured loans were benefiting from some form of forbearance at the end of 2011, and that 11 per cent of those with unsecured debts were in a similar position. Figure 19 provides a breakdown of the proportions of secured and unsecured borrowers reporting different forms of forbearance.

The importance of this forbearance is borne out in Figure 20. It shows that 28 per cent of benefiting mortgagors and 47 per cent of unsecured borrowers say they would be in arrears in the absence of such support. A further 46 per cent of mortgagors and 31 per cent of unsecured debtors would have struggled to keep up with repayments in the absence of forbearance. Perhaps unsurprisingly, it is low and middle income households who appear to be making most use of such measures.

Figure 21 details mortgage forbearance by income quintile. Compared to the overall figure of 12 per cent discussed above, it shows that one-in-four (25 per cent) mortgagors in the lowest income group and one-in-five (20 per cent) in the next lowest were in such a position in 2011.

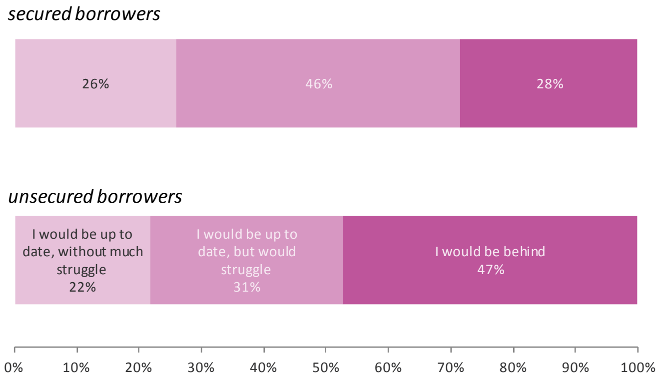
**Figure 19: Proportion of borrowers subject to forbearance, by type: *GB 2011***




Note: Respondents can cite more than one form of forbearance. Overall, secured figure was 12.2 per cent and unsecured figure was 10.8 per cent.

Source: Bank of England, *NMG Consulting Survey 2011*

**Figure 20: Expected position of borrowers in the absence of forbearance: *GB 2011***

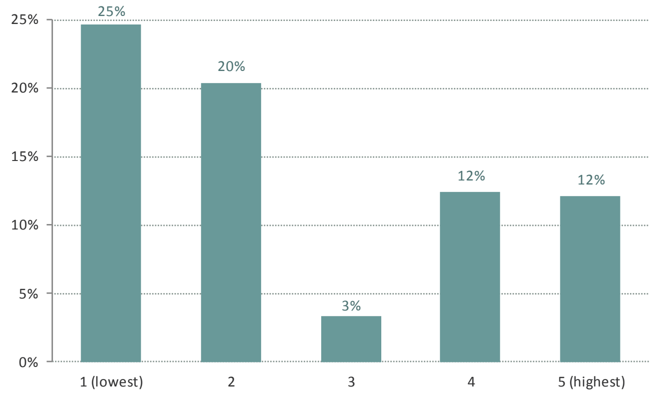



Source: Bank of England, *NMG Consulting Survey 2011*

The proportion drops dramatically in the middle of the income distribution, before returning to the national average for higher income households.

In addition to such forbearance agreements, the Financial Inclusion Centre has suggested that debt problems may be being further obscured in some households by loans taken out prior to the crisis. That is, money released via remortgages and additional secured loans in earlier years may now be being used to meet mortgage repayments in the face of a drop in income.[34]

**Figure 21: Proportion of mortgagors subject to forbearance, by equivalised gross household income quintile: *GB 2011***




Source: Bank of England, *NMG Consulting Survey 2011*

### *The experiences of 'debt loaded' households*

Survey evidence suggests that concerns about debt levels among families go wider than today's arrears data alone would suggest. For example, around 18 per cent of households responding to the 2012 NMG survey said that they were having difficulty paying for their accommodation, up from just 6 per cent in 2004. Similarly, around 61 per cent of those with unsecured debts said that they found repayments a burden, up from 38 per cent in 2004. Again the data points to concerns being more acute still among low to middle income households.[35] Similarly, data from Aviva finds that around one-in-ten (12 per cent) working-age families asked in Q2 2012 said they were worried about meeting repayments in the coming six months, while 13 per cent said they worried about rising mortgage rates in the longer-term.[36]

As discussed above, while a high level of debt may itself be worrying, the key metric to consider is the *affordability* of that debt. In this subsection, we focus on the profile and experiences of 'debt loaded' households: that is, those in which more than one-quarter of gross income is accounted for by (secured and unsecured) debt repayments. As with the data for highly geared mortgagors set out in Figure 13, the trend in such debt loaded households has been remarkably flat over recent years. Despite sharp cuts in the base rate from 2008, the proportion of households spending more than one-quarter of their income on all types of debts fell only slightly – from 16 per cent in 2007 to 14 per cent in 2012.[37]

As Table 1 shows, these debt loaded households have lower average pre-tax incomes (£26,900) than others (£31,700). They are particularly over-represented in mid-age groups, accounting for one-in-five (22 per cent) households headed by someone aged between 35 and 44 for instance. Not surprisingly, they are primarily drawn from mortgagor households, with four-fifths (80 per cent) of debt loaded households holding mortgages. However, a sizeable minority are found in other tenures, highlighting the difficulties that some households have with other forms of debt. Finally, while these households are slightly over-represented among the unemployed and long-term sick, it is worth noting that more than half (55 per cent) are drawn from households in which the main householder is in employment or self-employed.

**Table 1: Profile of 'debt loaded' households: *GB 2012***

| | Debt loaded | Non-debt loaded | Debt loaded | Non-debt loaded | All households |
|---|---|---|---|---|---|
| *All households* | 14% | 86% | : | : | : |
| *Average pre-tax household income* | £26,900 | £31,700 | : | : | : |
| *Age group of main householder* | | | | | |
| 18 - 24 | 12% | 88% | 8% | 10% | 10% |
| 25 - 34 | 17% | 83% | 20% | 16% | 17% |
| 35 - 44 | 22% | 78% | 27% | 16% | 18% |
| 45 - 54 | 18% | 82% | 23% | 17% | 18% |
| 55 - 64 | 10% | 90% | 11% | 16% | 15% |
| 65+ | 7% | 93% | 11% | 24% | 23% |
| *Tenure* | | | | | |
| Owned outright | 3% | 97% | 8% | 41% | 36% |
| Owned mortgage | 37% | 63% | 80% | 23% | 31% |
| Private rented | 4% | 96% | 6% | 22% | 19% |
| Social housing | 7% | 93% | 6% | 15% | 14% |
| *Job status of main householder* | | | | | |
| Employed | 18% | 82% | 62% | 49% | 51% |
| Self-employed | 15% | 85% | 7% | 6% | 6% |
| Unemployed | 20% | 80% | 4% | 3% | 3% |
| Long-term sick/disabled | 20% | 80% | 5% | 3% | 4% |
| Retired | 6% | 94% | 11% | 29% | 26% |
| FT student | 8% | 92% | 1% | 3% | 2% |
| Other | 18% | 82% | 10% | 7% | 8% |

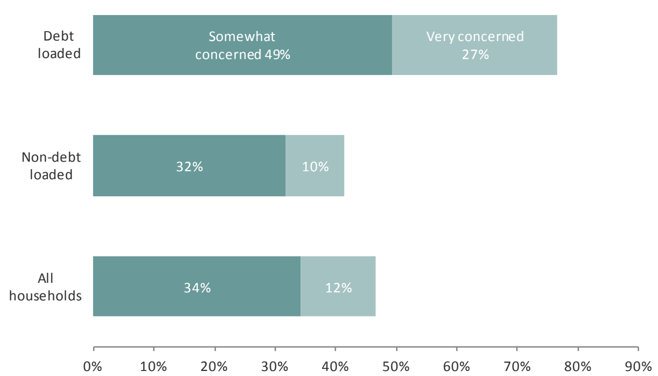
Notes: Debt loaded' households are those in which unsecured and secured debt repayments account for more than one-quarter of pre-tax income.

Source: Bank of England, *NMG Consulting Survey 2012*

Across a range of measures relating to debt concerns and repayment difficulties, these debt loaded households appear clearly more exposed than others.

Figure 22 shows that three-quarters (77 per cent) of debt loaded households are concerned about their level of debt, with one-quarter (27 per cent) saying they are 'very' concerned. Overall, half (47 per cent) of all households said they were at least somewhat concerned, with 12 per cent recording a particularly acute level.

**Figure 22: Distribution of concern about debt: *GB 2012***




Note: 'Debt loaded' refers to those spending more than one-quarter of their income on debt repayments.

Source: Bank of England, *NMG Consulting Survey 2012*

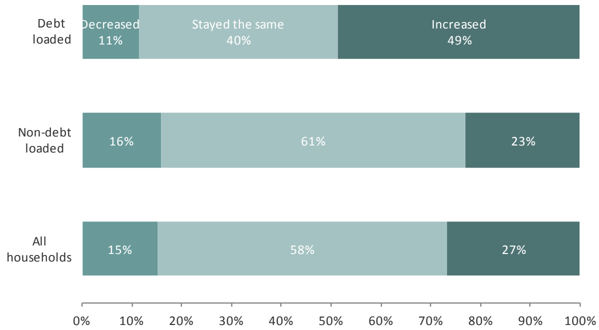
Similarly, Figure 23 shows that debt concern has increased over the past two years among one-quarter (27 per cent) of all households, but among half (49 per cent) of the debt loaded.

Debt loaded households are also more likely to have experienced difficulty paying for their accommodation in the past 12 months: one-third (34 per cent) of such households were in this position, compared with just 15 per cent of non-debt loaded households. Similarly, one-in-ten (10 per cent) debt loaded households said they were behind with household bills and repayments and a further 29 per cent said keeping up was a "constant struggle". In contrast, just 15 per cent of non-debt loaded households faced such a struggle and only 4 per cent were behind with payments.

Despite primarily holding mortgages, the debt loaded households also look exposed in relation to unsecured debts. Figure 24 shows that of those with outstanding unsecured loans, four-fifths (81 per cent) said they found repayments to be a burden, with two-fifths (39 per cent) declaring this to be a 'heavy' burden. In contrast, 57 per cent of non-debt loaded households with unsecured debts said that repayments were a burden.

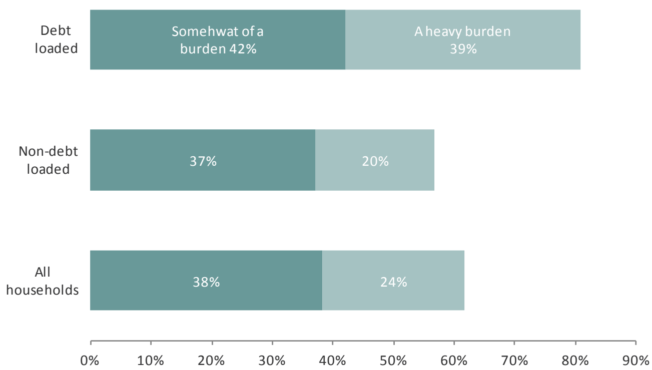
Once again, tight credit supply is a particular cause for concern within the debt loaded group. Figure 25 shows that one-third (34 per cent) of such households were put off spending in the past 12 months because of concerns about the cost of accessing credit, compared with one-quarter (24 per cent) of non-debt loaded households.

**Figure 23: Distribution of change in concern about debt over past two years: *GB 2012***



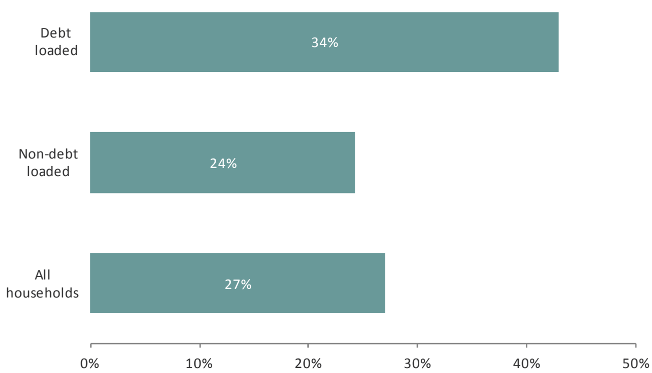

Note: 'Debt loaded' refers to those spending more than one-quarter of their income on debt repayments.
Source: Bank of England, *NMG Consulting Survey 2012*

**Figure 24: Proportion of households with unsecured loans declaring them to be a burden: *GB 2012***




Note: 'Debt loaded' refers to those spending more than one-quarter of their income on debt repayments.
Source: Bank of England, *NMG Consulting Survey 2012*

**Figure 25: Proportion of households put off spending in past year because of concerns about credit costs: *GB 2012***

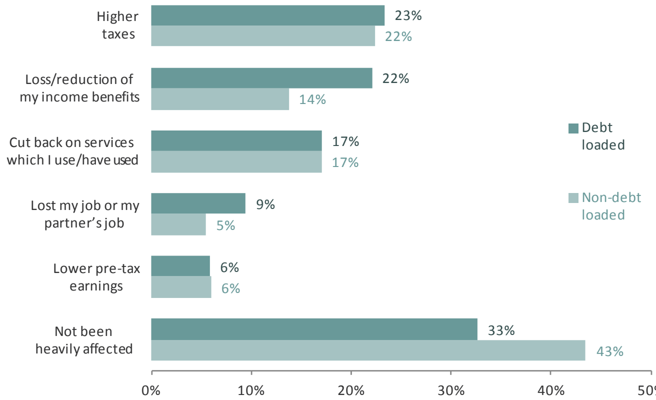



Note: 'Debt loaded' refers to those spending more than one-quarter of their income on debt repayments.
Source: Bank of England, *NMG Consulting Survey 2012*

More than two-thirds (70 per cent) of debt loaded households say that they do not have enough money to cover emergencies, compared with less than half (44 per cent) of non debt loaded households.

Debt loaded households also appear to have been more acutely affected by fiscal consolidation than other households. Figure 26 details a range of reactions to the government's tax and benefit changes over the past two years. It shows that debt loaded households (22 per cent) are more likely than others (14 per cent) to have faced a reduction in income or benefits.

**Figure 26: Self-reported impact of fiscal consolidation over past two years: *GB 2012***




Note: 'Debt loaded' refers to those spending more than one-quarter of their income on debt repayments.
Source: Bank of England, *NMG Consulting Survey 2012*

Almost one-in-ten (9 per cent) of these debt loaded households also say that fiscal consolidation has resulted in a loss of employment for themselves or their partner, compared with 5 per cent of non-debt loaded households.

### *Storing up trouble?*

There appears therefore to be a sizeable minority of households in which the debt burden is high – despite the presence of the four mitigating factors discussed above (monetary policy, house prices, employment and forbearance). Any unravelling of the current conditions therefore raises the prospect of debt problems to come.

And there is considerable uncertainty over just how each of these factors will develop. At some point, interest rates will start to rise once again, particularly if inflationary pressures build. Similarly, house prices continue to appear overvalued according to some metrics and may yet fall further,[38] with the OBR projecting growth of just 0.7 per cent in 2013.[39] There is also the potential for growing regional imbalances in performance. Despite falling over the course of the year, unemployment remains high and under-employment remains a real issue for many households. Likewise, forbearance is by its nature a time-limited offer.

Developments in each of these areas – and in the economy more generally – will be crucial in the coming months and years and we will consider the consequences of a variety of trajectories over the course of the project. In an ideal scenario, sustainable economic recovery will boost employment and wages, with household incomes rising in line with borrowing costs. Forbearance agreements could then be unwound, with mortgagors once again able to repay at market rates. However, an equally plausible – and possibly more likely – scenario sees income growth lagging increases in borrowing costs. In this instance, we might expect a new wave of defaults or home possessions. We consider the prospects for households in the coming years in Section 3.

# 3 Dealing with the debt hangover

We have seen above that rapid expansions of private sector debts and associated asset price bubbles during the 2000s played a significant role in the global financial crash of 2007. In the UK, this process was most marked in the financial sector itself, meaning that banks today appear to be highly exposed to economic conditions in the US and eurozone. The domestic corporate and household sectors also recorded substantial increases in debt and income-gearing ratios though, with evidence that some households were experiencing repayment difficulties even before the recession hit.

While there has not yet been the avalanche of debt defaults predicted by some at the start of the crisis, significant numbers of households – particularly those with low to middle incomes – continue to look overstretched. Their ability to manage the debts they hold will depend on the prospects of a variety of economic factors, many of which will in turn be influenced by deleveraging in the household sector. Household debt at the micro level may be just as important for macroeconomic recovery as economic conditions are for individual households.

In this section we consider some of these prospects and attempt to set out the potential interaction between the position of individual households and wider economic recovery. In doing this, we are able to provide a context for thinking about potential policy interventions that we might want to consider as this project develops. We begin with a discussion about the scale of deleveraging required in the UK.

### *Deleveraging and growth*

As discussed above, the standard view in relation to financial crises is that economic recovery is slowed down – and potentially put on hold – by the need for deleveraging among households, firms, banks and governments. Only once debt is brought back under control can growth get back to normal.

For example, a recent IMF study[40] finds that recessions and housing busts preceded by larger increases in household debt empirically result in stronger contractions than low-debt busts, reflecting in part a more intense household deleveraging process. It argues that household debt can drag back on economic recovery for a number of reasons, including differences in marginal propensities to consume across creditors and debtors (because debtors are likely to spend a greater share of each additional pound of income, deleveraging can reduce aggregate demand), downward spirals associated with 'fire sales' (with assets such as housing being sold to supplement falling incomes) and allocative inefficiencies (with over-indebted households shunning potentially profitable investment).

Recent data from the UK appears to support the first of these hypotheses. At the aggregate level, analysis by the Bank of England suggests that families experiencing a negative income shock during 2012 recorded a higher marginal propensity to consume (around 0.64) than did those reporting a positive income shock (0.14). These marginal propensities were higher still among credit constrained households: the Bank estimated that those survey respondents saying their income had fallen and that their access to credit was restricted would spend around 75p of each additional £1 of income on average.[41] Of course, we might expect reductions in borrowing costs to encourage creditors with lower marginal propensities to increase their consumption preferences to fill the demand gap. However, the proximity of interest rates to their zero bounds means there appears to be little prospect of this happening in the near-future.

### *How far do we need to go?*

As Figure 3 showed, the UK household sector *has* undertaken some deleveraging since the crisis, with the debt-to-GDP ratio falling from 106 per cent in 2008 to 99 per cent in 2012. But there is considerable debate about how much further households and the private sector more generally has to go.

The McKinsey Global Institute has suggested two potential approaches. The first is to assume that debt levels and debt-servicing ratios should return to their pre-bubble trends, while the second is to assume that deleveraging will be similar in magnitude to that undertaken following earlier experiences of financial crises. Using these measures, the paper concludes that the overall UK debt-to-income ratio is unlikely to recover until the end of the decade.[42] Others suggest moving back towards specific levels of income-gearing that have been associated with low levels of arrears and home possessions in earlier periods, with Ross Walker at the Royal Bank of Scotland again predicting that this will not occur before 2019.[43]

Others are sceptical of such approaches however, arguing that there is room for more borrowing, with economic recovery requiring solvent households to take on additional debts to buy property and other assets.[44] More fundamentally, Ben Broadbent questions whether the *stock* of debt – particularly at the household level – has any impact on post-crash economic growth (though he does acknowledge that some studies have identified a correlation between the *rate of growth* of private sector debt and recovery paths following financial crises).[45]

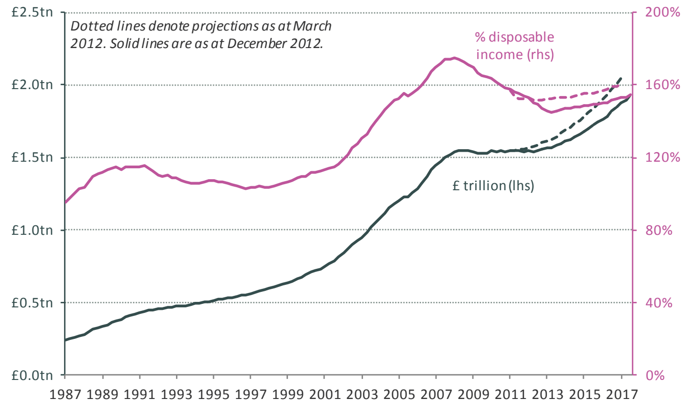
This contention appears to chime with the position of the OBR. It has stated that it does not expect household debt to produce a significant drag on the recovery, with most people having already made most of their adjustment to falling incomes. In its view, GDP growth *will* be sluggish, but because of ongoing slow income growth rather than because of mass deleveraging.

It has, however, downgraded its expectations for GDP growth in its latest set of projections as a direct result of lower levels of borrowing than it previously anticipated. While it is still forecasting an imminent return to increases in household borrowing, it has stated that it “does not expect a rapid return to pre-crisis rates of debt accumulation, given revised bank and borrower risk appetite”.[46]

Nevertheless, Figure 27 shows that household debt is projected to increase in cash terms from Q3 2012, approaching £2 trillion towards the end of 2017. As a proportion of disposable income, the OBR suggests that the household sector will continue to deleverage into the middle of 2013, reaching a low of 145 per cent, before increasing steadily to 155 per cent in 2017.

However, these levels are some way short of the March 2012 projections: at this time, the OBR had anticipated borrowing reaching £2 trillion as early as 2016 and ending the period at 160 per cent of disposable income.

**Figure 27: Household debt forecasts:** ***UK 2009-2017***




Notes: Differs from Figure 4 because data cover households *and* non profit institutions serving households.
Source: OBR, *Economic and fiscal outlook: supplementary economic tables*, March 2012 and December 2012, Table 1.9

There is clearly a lot of uncertainty about the trajectory of household borrowing in the coming years. However, while it may not be possible – or sufficiently nuanced – to determine a target level of deleveraging at the household level, the distribution of debt exposures discussed in Section 2 mean that it is nevertheless clear that a sizeable number of families *will* need to unwind their debt position over the coming years. But how will they get there?

## *The case for intervention in the deleveraging process*

Since the housing bubble burst in the US, four million owners are reported to have lost their homes, with a further 3.5 million being in, or close to, the foreclosure process. With an additional 13.5 million in negative equity, more are expected to follow this route.[47] As a result of this spike in defaults, the McKinsey Global Institute research concludes that the US is further through its required deleveraging process (about half way) than the UK.[48]

With growing concern that 'zombie' firms and households propped up by loose monetary policy are holding back a return to economic growth in this country, some experts may argue for a removal of support in order to usher in a period of creative destruction.[49] Clearly however, this route is far from easy. Indeed, the IMF study of household deleveraging argues that foreclosures and bankruptcy give rise to significant deadweight costs associated with vacant properties, social cohesion and crime, pointing to the efficacy of continued – or enhanced – intervention.[50]

The levels of exposure faced by low to middle income and debt loaded households should mean that, as a minimum, government and others prepare themselves for possible difficulties in the coming years. This means ensuring the debt advice sector is sufficiently equipped, along with thinking about the allocation of resources to legal, mental health and community services. However, if we believe that deleveraging will form a significant block on economic recovery, the response may need to be more radical still. We consider a selection of potential avenues below.

### *Monetary policy*

Given the still parlous state of the economy and the dampening effect of the ongoing crisis in the eurozone, any significant rise in the base rate looks some way off. Indeed, the latest *Inflation Report* from the Bank of England states that forward market interest rates imply that the base rate will remain broadly static for the next two years and the Monetary Policy Committee (MPC) has recently discussed (though ultimately rejected) the case for *reducing* the rate still further.[51] There is significant uncertainty around this outlook however. While inflation has been heading down over the last year, recent trends have been erratic and the Bank acknowledges that external cost pressures such as global commodity prices remain "a key source of risk".[52]

Moreover, with low to middle income households projected to be no better off in 2020 than they were in 2000,[53] it is quite possible that even at this slow pace interest rates will increase before the incomes of the most overstretched households do. And it may not take especially substantial movements in the cost of borrowing for repayment problems to arise: one estimate suggests that default risks would be "meaningfully heightened" if mortgage rates were to rise from their current level of 3.7 per cent to around 5 per cent.[54] Similarly, Bank of England analysis suggests that an increase of this sort of magnitude would require around one-quarter of existing mortgagors to take "special action".[55]

Of course, any increase in interest rates is likely to be gradual. In addition, lenders may be able to absorb some increase in the base rate by reducing the spread between their rates and the Bank rate, particularly following recent sharp reductions in funding costs.[56] Nevertheless, a combination of the heightened income-gearing highlighted in Figure 13 and a potential continuation of the disconnection between GDP growth and household incomes that became apparent in the years leading up to the financial crisis remains troubling.

In this scenario, members of the MPC could face a very difficult policy decision as the economy returns to growth: under pressure to raise rates in order to maintain inflation at 2 per cent, but recognising that their decision could push exposed households over the edge and, in turn, damage the recovery. We may therefore want to look again at the role and reach of the Bank of England, and at the purpose of monetary policy itself. The arrival of a new Governor could provide the ideal opportunity.

Since its establishment when the Bank was made independent, the MPC has had a dual remit: to maintain price stability and, subject to that, to support the economic policy of the government, including its objectives for growth and employment. The financial crash has sparked debate both here and in other countries about the scope for monetary policy to move beyond simple inflation-targeting. Olivier Blanchard has highlighted the importance of macro prudential tools such as loan-to-value ratios for instance[57] (and the Bank of England's new Financial Policy Committee will play such a role in the UK), while Mervyn King has explored the option of flexible inflation-targeting that can be adjusted temporarily in order to head off the possibility of financial crisis.[58] Others appear less enthusiastic,[59] but there is openness to debate.

To date, these discussions have tended to focus on the role central banks can play in 'leaning against the wind' during periods of economic boom in order to reduce the chances of future bubbles and financial crashes, but Mark Carney has made the case for nominal GDP targeting in the current low interest rate environment[60] and we might want to explore the potential for relaxing the inflation target as a means of helping unwind households' over-indebtedness in a post-crash world. Clearly this is a difficult balancing act to achieve – a country's reputation for low inflation is hard won and easily lost – but it is an area worth exploring in more detail.

### *Support for the financial sector*

As discussed above, the largest share of debt in the UK is held by banks, and there is significant exposure to eurozone and US consumers. Lending to households (and firms) is therefore expected to remain weak for some time because of the need for deleveraging within the banking sector.[61] New macro prudential regulation is likely to further tighten access to borrowing. The Bank of England's new Financial Policy Committee (FPC) will be charged with "identifying, monitoring and taking action to remove or reduce systemic risks with a view to protecting and enhancing the resilience of the UK financial system". With the FPC designed to curtail the excesses observed in the 2000s, we might expect households – and in particular the low to middle income households which form such a large proportion of those exposed to problem debts – to have less access to credit in future years than was previously the case.

While there is a clear case for taking such measures in order to improve financial stability and avoid future crises, it throws up another difficult balancing act for policy makers: namely tightening the regulation of the financial sector while ensuring that low to middle income households can continue to access appropriate forms of borrowing. Failure to achieve the right balance could result in such households increasingly turning towards sub-prime or non-standard forms of credit as a means of reacting flexibly to changes in their incomes and expenditure needs.

The new Funding for Lending scheme introduced by the Bank of England, which has significantly reduced costs for banks, appears to have eased the situation somewhat in recent months. However, depending on developments in international markets, such support for the financial sector may need to be extended. We will consider a variety of options over the course of the project.

### *Debt restructuring*

With debt problems continuing to pull back on consumption growth in the US, many economists have argued for the restructuring, or writing-off of some mortgage debts.[62] Indeed, the IMF study of household deleveraging concludes that "bold" restructuring programs can significantly reduce default rates and substantially reduce debt repayment, thereby helping to prevent self-reinforcing cycles of declining house prices and lower aggregate demand.[63]

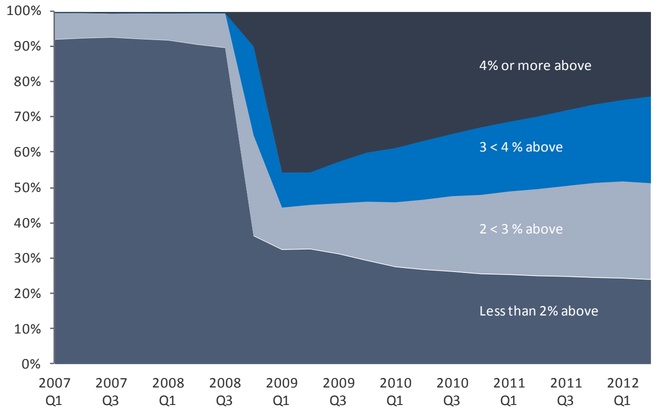
One proposal in the US is for the state to offer mortgages, for a three-year window, to homeowners in negative equity but up to date with their repayments. Such loans would be priced at 2 per cent above government borrowing costs, thus benefiting borrowers. Lenders would also gain, via the removal of potentially bad loans from their books. For the state, subsequent repayments would provide a revenue stream for years to come. Clearly the state then bears something of a risk, but proponents argue that this is preferable to doing nothing.[64]

As we have seen, house prices have not fallen in the UK to the same extent as in the US, and negative equity appears to be less of a problem here. Nevertheless, there is reason to believe that it might be worth exploring similar restructuring models as a means of reducing the impact of deleveraging on economic recovery. With interest rates at an historic low in the UK, some borrowers have been able to take advantage of the current climate to lock themselves into deals designed to minimise their mortgage burden in the coming years. But not everyone is able to do so: some may incur a penalty for prematurely moving from an existing deal and others may not be considered safe enough bets to access the best rates.

As Figure 28 shows, a significant proportion of UK mortgage balances are currently being serviced at levels of interest well above the base rate.

Although spreads have fallen a little as existing fixed rate deals have come to an end, by Q2 2012, nearly one-quarter of balances (24 per cent) were still subject to rates of at least 4 percentage points more than the base and a further quarter (25 per cent) were 3-4 percentage points higher.

**Figure 28: Distribution of mortgage balances by distance above Bank of England base rate:** ***UK 2007-2012***




Source: FSA, *Statistics on Mortgage Lending*, MLAR Table 1.22

Mortgage restructuring that offers those households most exposed to risk as interest rates rise the opportunity to repay at a cost that more closely corresponds to the base rate – and locking in that advantage for a longer period than the standard two or three years offered my mortgage providers – has the potential to both boost the household sector and improve lender confidence. Obviously there would be some cost involved in lending at potentially sub-market rates, but this may be more than offset by the positive impacts on growth.

In common with all of the potential policy responses discussed in this section, the details would clearly need careful consideration. It may well be that, on closer inspection, the various approaches would prove disproportionate to the economic risk associated with household debt. Future work in this project will aim to investigate the need for such measures more fully and, through work with experts in the area, will produce more detailed policy recommendations.

## Conclusions

Credit has been central to economic growth for decades, oiling the wheels of commerce and allowing households to smooth out the peaks and troughs of income and expenditure. Rapid increases in debt stocks and the introduction of ever more complicated loan vehicles in the decade or so leading up to the financial crisis of 2008 has caused many to look again at the role played by credit. At the very least, it has often been supposed that the excesses of the 2000s – particularly in the household sector – would need unwinding before the economy could return to a steady and sustainable rate of growth.

In truth, ultra-loose monetary policy, lender forbearance, a resilient labour market and sticky house prices in the UK have meant that debt has not produced the debt crisis that many envisaged at the start of the downturn. But that is not to say that we can be relaxed about debt.

This paper has shown that for a significant minority of households, particularly those on low to middle incomes, debt remains a very real concern. For many, liabilities outweigh assets, and servicing costs consume a large share of monthly income, despite the historically low level of interest rates. The prospect of interest rates rising and forbearance being removed while incomes continue to stagnate heightens the risk of future defaults. Such an outcome may yet slowdown, or stall, economic recovery: at some tipping point the micro issue becomes a macro one. In this eventuality, we may find that the green shoots of recovery just sprouting in the UK economy prove to be living on borrowed time.

To reduce the risk of this eventuality, there is a need to consider the costs and benefits associated with a range of options for household deleveraging. We have argued that doing nothing and allowing households to simply go to the wall is not really an option: the human, social and economic costs are too high. Neither is there much to be gained from using public funds to prop up families with little prospect of ever recovering their financial position. There are, however, a range of options between these that we can consider in order to help solvent but debt loaded households.

In particular, options designed to reduce the cost of debt servicing can allow households to unwind their position while still being an engine for demand growth in the economy. Such routes may be particularly effective if they also facilitate the removal of problem debts from banks' balance sheets and so improve lender confidence.

The details of such options will clearly require careful consideration. In this project therefore, we will dig more deeply into the landscape of household debt. We will look at levels of exposure across the population, to determine just which households look most vulnerable to future monetary tightening and quantify the potential impact in relation to a range of potential trajectories for GDP, incomes and interest rates. We will look also at developments in other countries, both in reaction to the current crisis and in relation to earlier financial crashes. In conjunction with experts in this area, we will develop a series of policy recommendations designed to ensure that the household debt overhang does not turn into yet another headwind facing UK economic recovery.

[1] See for example, IMF, *World Economic Outlook 2012*, Chapter 3.
[2] See for example, C Bean, "The Great Moderation, the Great Panic and the Great Contraction", Schumpeter Lecture, Delivered at the Annual Congress of the European Economic Association, 25 August 2009
[3] A Turner, Mansion House Speech, 11 October 2012
[4] S Keen, "Time to read some Minsky", *Steve Keen's Debtwatch blog*, 10 March 2008
[5] One estimate suggests that the decline in UK long-term interest rates explained around half of the overall decline in the household saving ratio between 1997 and 2006. See S Berry, R Williams, M Waldron, "Household saving", *Bank of England Quarterly Bulletin*, Q3 2009.
[6] M King, "Twenty years of inflation targeting", Stamp Memorial Lecture, London School of Economics, 9 October 2012
[7] That is, the re-packaging and selling on of mortgage debt by providers in order to free up capital for further lending.
[8] See for example, P Hammond quoted in J Kirkup, "Families must accept share of blame for Britain's woes", *The Telegraph*, 3 May 2012.
[9] See for example, "Central banks should admit their mistakes: an interview with the Bank of England's Andy Haldane", *Our Kingdom*, 31 July2012. See also M King, "Twenty years of inflation targeting", Stamp Memorial Lecture, London School of Economics, 9 October 2012 for a presentation of alternative monetary approaches that the Bank of England could have taken pre-crisis.
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[12] R Dobbs, J Manyika, C Roxburgh & S Lund, *Debt and deleveraging: Uneven progress on the path to growth*, McKinsey Global Institute, January 2012
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[14] M Stephens, J Ford, P Spencer, A Wallace, S Wilcox & P Williams, *Housing market recessions and sustainable home-ownership*, Joseph Rowntree Foundation, July 2008
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[16] C Hamnett, *The Madness of Mortgage Lenders: Housing finance and the financial crisis*, IPPR, May 2009
[17] T Hellebrandt, S Kawar & M Waldron, "The economics and estimation of negative equity", *Bank of England Quarterly Bulletin*, Q2 2009
[18] Financial Services Authority, *Statistics on Mortgage Lending*, MLAR Table 1.22
[19] T Hellebrandt, S Kawar & M Waldron, "The economics and estimation of negative equity", *Bank of England Quarterly Bulletin*, Q2 2009
[20] A Fatas, "No need to deleverage gross debt", *fatasmihov.blogspot.co.uk,* January 2012
[21] B Broadbent, "Deleveraging", speech at Market News International, London, 15 March 2012
[22] See T Harford, "Why have house prices stayed so high?" *The Undercover Economist blog*, 21 January 2012, for example.
[23] It is also possible that some of the withdrawals made under the 'other' category in this period reflected households over-mortgaging or remortgaging with a view to consuming the excess, but it is not possible to capture this element.
[24] That is, gross household incomes are adjusted to account for the size of the households. For any given level of income, a person living on their own would be expected to enjoy a higher standard of living than a family of four. For the purposes of comparison, incomes are therefore adjusted in accordance with the modified OECD equivalisation scale. The 2012 survey does not include sufficient information for this equivalisation process, so the distributional data reported here relates to 2011 instead.
[25] D Ben-Galim & T Lanning, *Strength Against Shocks: Low-income families and debt*, IPPR, February 2010
[26] Aviva, *The Aviva Family Finances Report August 2012*, 2012
[27] Shelter press release, "Millions rely on credit to pay for home", 4 July 2012
[28] FSA, *Statistics on mortgage lending*, MLAR Table 1.22
[29] See R Barwell, "The curious case of the housing market boom without a bust", *Der Querdenker*, RBS, 5 November 2012 for a more nuanced discussion of the relative resilience of UK house prices in recent years.
[30] T Hellebrandt, S Kawar & M Waldron, "The economics and estimation of negative equity", *Bank of England Quarterly Bulletin*, Q2 2009
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[32] ONS, "People in work wanting more hours increases by 1 million  since 2008", 28 November 2012

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[35] P Bunn & J Le Roux, "Influences on household spending: evidence from the 2011 NMG Consulting survey", *Bank of England Quarterly Bulletin*, Q4 2012
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[38] "Downdraft: European house prices are finding it harder to defy gravity", *The Economist*, 31 March 2012
[39] OBR, *Fiscal and economic outlook*, December 2012, Table 3.5
[40] IMF, *World Economic Outlook*, April 2012, Chapter 3
[41] P Bunn & J Le Roux, "Influences on household spending: evidence from the 2011 NMG Consulting survey", *Bank of England Quarterly Bulletin*, Q4 2012
[42] R Dobbs, J Manyika, C Roxburgh & S Lund, *Debt and deleveraging: Uneven progress on the path to growth*, McKinsey Global Institute, January 2012
[43] R Walker, *UK Household Deleveraging*, 10 February 2012
[44] C Giles, "Stop decrying the great British debtholders", *Financial Times*, 22 February 2012
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[46] OBR, *Economic and Fiscal Outlook*¸ December 2012, para 3.44
[47] J Stiglitz & M Zandi "The One Housing Solution Left: Mass Mortgage Refinancing", *The New York Times*, August 2012
[48] R Dobbs, J Manyika, C Roxburgh & S Lund, *Debt and deleveraging: Uneven progress on the path to growth*, McKinsey Global Institute, January 2012
[49] See C Giles, "Zombies seen to hold back recovery", *The Financial Times*, 13 November 2012
[50] IMF, *World Economic Outlook*, April 2012, Chapter 3
[51] Bank of England, *Minutes of the Monetary Policy Committee Meeting 7 and 8 November 2012*, para 37
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## *The Resolution Foundation*

The Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low to middle incomes by delivering change in areas where they are currently disadvantaged. We do this by:

- undertaking research and economic analysis to understand the challenges facing people on a low to middle income;
- developing practical and effective policy proposals; and
- engaging with policy makers and stakeholders to influence decision-making and bring about change.

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