Why are US home foreclosures so high?

Executive Summary

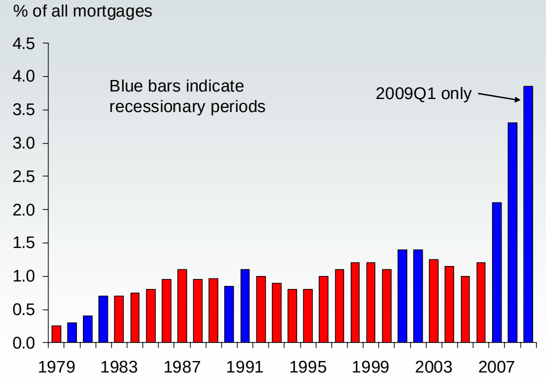
- US mortgage delinquencies and foreclosures have risen to extraordinary heights in recent months. Around 11% of US mortgages are now estimated to be either in arrears or in foreclosure. Delinquency rates on the pools of mortgages underlying subprime mortgage-backed securities are running at 40-50%.
- The scale of the distress in the US mortgage market appears to be much greater than in other major economies, including the UK which is also in the throes of a major housing market correction. Even allowing for differences in definitions and measurement problems, US arrears levels are around double those in the UK, and foreclosure levels more than ten times as high.
- Differences in the macroeconomic picture provide part of the explanation. The US housing collapse began earlier than that in the UK, and the UK has also enjoyed a faster drop in mortgage debt servicing costs for households.
- But while UK repossessions are likely to rise further in the quarters ahead, it is very unlikely that they will get anywhere near the US levels. Even in the early 1990s housing bust, UK repossessions only reached a small fraction of the levels seen in the US now.
- Important structural features of the two markets seem to be behind the divergence in loan performance. Foreclosures in the US have been on an upward trend for thirty years and have generally run at much higher levels than in the UK.
- Underwriting standards also seem to have slipped much further in the US in recent years. The rise in subprime delinquencies began before the economic situation in the US soured, with many loans going into arrears shortly after being originated.
- A crucial factor appears to be the widespread existence of ‘non-recourse’ loans in the US, which allow borrowers in negative equity to walk away from their mortgage debt and sap the incentive to remain current on ‘underwater’ loans. No such loans exist in the UK.
- As a result, steep house price falls can generate a sharp rise in US foreclosures even without extenuating macroeconomic circumstances such as high interest rates or unemployment. This is illustrated by state-level data which show the highest foreclosure rates in states where house prices have fallen most.
- In the UK, by contrast, there are strong incentives for home owners to remain in their properties, even when in negative equity. As a result, the escalation from arrears to foreclosure in the UK is much more limited. This may head off very abrupt prices falls but could also mean a more drawn out process of adjustment in the housing market.

US foreclosure rate surges…

The distress level among US mortgage borrowers has surged to unprecedented levels in recent months. Despite a number of measures taken at the State and Federal level designed to arrest the increase in foreclosures, the foreclosure rate in the first quarter of this year hit 3.9% of outstanding mortgages.

This was up from 3.3% at the end of 2008, and is almost four times the average rate over the last thirty years. It is also much higher than in the last three recessions.

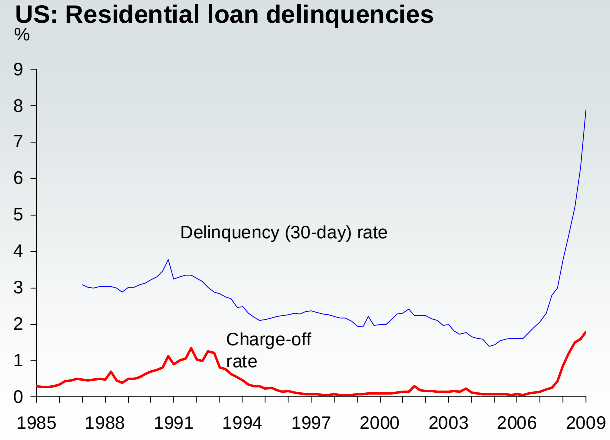
US: Foreclosure rate



Source : Mortgage Bankers' Association

The number of borrowers in arrears, but not yet facing foreclosure, has also exploded. In the first quarter, the share of loans at least one payment overdue reached 9.1% according to the Mortgage Bankers' Association. This rate has doubled over the last two years. The proportion of loans both in arrears and in foreclosure, at almost 13%, is by far the highest seen since the data were first collected in 1972.

US: Residential loan delinquencies



Source : Oxford Economics/Haver Analytics

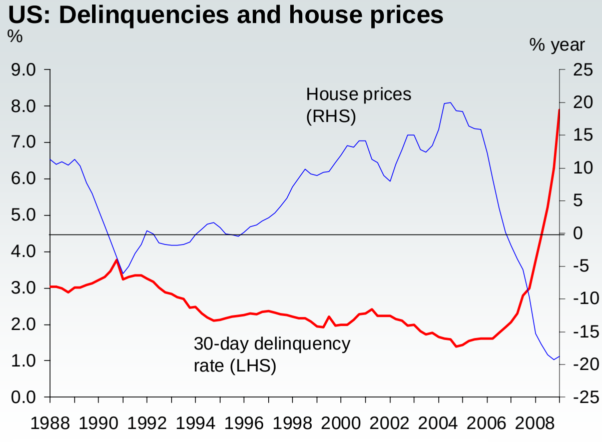
This explosion in delinquencies and foreclosures has had a dramatic negative impact on the health of the US banking system. The so-called 'charge off' rate for mortgage loans (essentially the amount written off as lost) among US banks reached 1.8% in the first quarter of this year, again an all-time series high, and given the trend in foreclosures, the risks look to be for this rate to rise even further. Banks have also taken massive losses on asset-backed securities, constructed from pools of mortgages, as the underlying assets have soured.

…threatening to hold back recovery

The extraordinary deterioration of payments discipline among US mortgage borrowers poses a significant threat to a sustained economic recovery. While it continues, and US banks continue to post losses on their residential loan books, pressure to shrink balance sheets will remain and credit supply more generally will be constrained – even perhaps to healthy sectors of the economy.

The wave of foreclosures also threatens to maintain downward pressure on US house prices for a considerable period. Apart from eroding loan collateral and adding to problems at banks, this will also delay any upturn in the depressed housing construction sector and restrain private consumption via negative wealth effects.

US: Delinquencies and house prices



Source : Oxford Economics/Haver Analytics

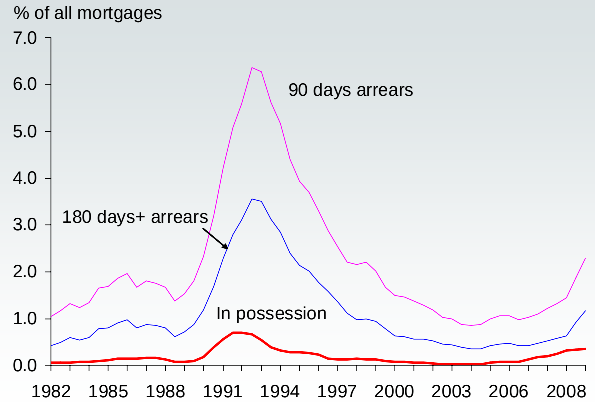
The magnitude of the rise in delinquencies and foreclosures is also somewhat mysterious. As noted above, it far exceeds that seen in previous episodes of recession in the US. It also appears to be much worse than might be expected based on historical relationships with key macroeconomic variables such as unemployment and house prices.

Simple regressions of the level of delinquencies on the annual change in house prices and the annual change in the unemployment rate yield equations that suggest the current rate of 30-day delinquencies might be expected to be around 5%, rather than the near 8% currently seen in Federal Reserve data.

Much lower distress levels in the UK…

The level of arrears and foreclosures also appears to be much higher in the US than in other major economies which are undergoing house price corrections. A good comparison can be made with the UK, with which the US shares many similar features. In the UK, first quarter data showed just 0.3% of total mortgages in possession, a tiny fraction of the near-4% US level.

UK: Mortgage arrears and possessions



Source : Oxford Economics/Haver Analytics

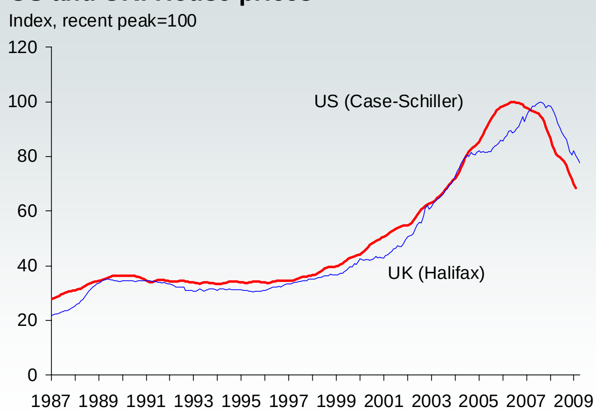
Levels of arrears also look much lower, with only around 2% of mortgages 90 days or more in arrears. Some caution is needed here, as the data are not fully comparable between the two countries. In terms of repossessions, there is reason to believe that the CML data used above for the UK understates the level of properties being possessed due to its excluding some lenders, notably those specialising in non-standard mortgages. They also probably understate the scale of distress in the 'buy-to-let' market by excluding cases where a 'receiver of rent' has been appointed.

Arrears levels are also difficult to compare precisely, with the US data focusing on 30-days and above arrears and the UK data on 90-days and above.

However, alternative data from S&P on arrears in securitised UK mortgages suggest arrears on a 30-day basis are running at around 4%, around half the US rate – and this probably overstates things as the securitised UK mortgages appear to have higher delinquency rates due to weaker underwriting standards than in the universe of mortgages as a whole.

Part of the big gap between US and UK developments reflects time lags. The US house price decline began as far back as 2006, 12 months or so before the turn in the UK market. It has also been deeper, at around 30% peak-to-trough so far, compared to 20% for the UK. There has also been a rather more abrupt rise in US unemployment than has taken place in the UK.

US and UK: House prices



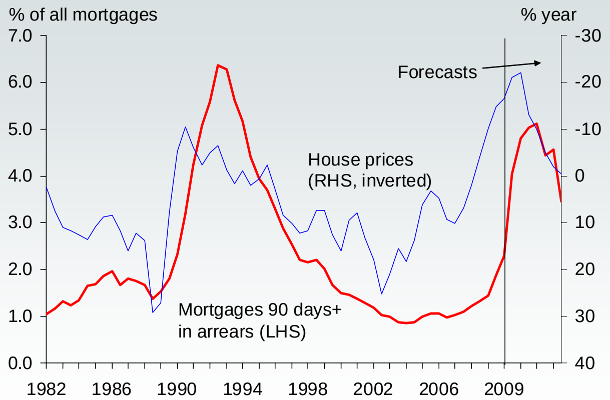
Source : Oxford Economics/Haver Analytics

But even allowing for these factors, it seems very unlikely that UK levels of arrears and repossessions will get anywhere near those currently seen in the US. A look back to the painful UK housing bust of the early 1990s shows that even then, when unemployment was higher and mortgage rates significantly higher, repossessions only reached 0.7% of total mortgages.

Interestingly, arrears levels in the UK did rise quite sharply in the 1990s, however, with more than 6% of mortgages 90 days or more delinquent at the peak. This is comparable with the current US situation.

Looking ahead, we believe UK arrears levels are likely to rise further, with some catch-up with the US situation. There is typically about a 12-18 month lag between peaks in arrears and key macroeconomic drivers of arrears such as interest rates, unemployment, and house prices. Moreover, we expect further rises in unemployment and falls in house prices in the quarters ahead. If we plug in our current forecasts for peak unemployment and house price declines, and allow these lags to run, simple regressions suggest UK arrears levels will climb significantly further, to around 5% on a 90-day basis.

UK: Mortgage arrears and house prices



Source : Oxford Economics/Haver Analytics

But this will still be consistent with a level of repossessions way below those currently seen in the US. For the big divergence that exists is that in the UK, a relatively small proportion of these arrears cases evolve into repossessions. This hints at important structural differences between the US and UK, including in the behaviour of lenders and borrowers in situations of payment delinquency and negative equity.

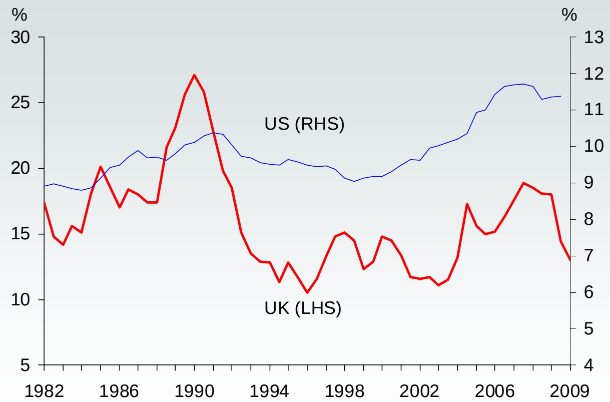
…thanks to key structural differences…

One important set of structural differences between the US and UK lie in the mortgage market. In the US, most mortgages are at fixed rates priced off long-term yields, so that although borrowers can often refinance without penalty as rates fall, swings in effective mortgage rates tend to be smaller than in the UK – where mortgages tend to be linked to shorter-term interest rates.

In addition, many US borrowers in the subprime sector, who took out mortgages in the 2006-2007 period were enticed to do so by very low initial rates – so-called 'teaser rates' – which later reset to much higher levels. In the UK, a similar phenomenon threatened to cause problems in 2007-2008 when borrowers came off cheap fixed rate deals and on to higher variable rates – but standard variable rates have collapsed over the last year as the Bank of England base rate has dropped toward zero, offsetting this effect substantially.

A look at recent developments in mortgage debt servicing costs confirms the above analysis. In the US, debt service has been remarkably stable at about 11-12% of disposable income over the last two years. Indeed, despite conventional 30-year mortgage rates dropping by 1.5% points from mid-2008 to early 2009, the effective mortgage rate paid dropped only slightly, presumably partly due to resets and wider spreads for jumbo and other non-standard mortgages.

US & UK: Mortgage debt service, % of income



Source : CML, Federal Reserve

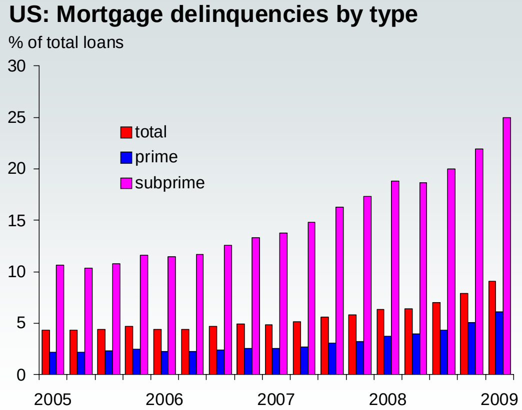
In the UK, meanwhile, the mortgage debt service/income ratio has dropped significantly since the end of 2007, from 19% to 13%. This is less than half the peak seen in the early 1990s, and goes a long way to explaining why our forecast peak for UK arrears is also below the peak seen then.

Another important difference between the US and the UK is the extent to which underwriting standards appear to have slipped in the period immediately preceding the housing bust. The excesses of the US subprime sector, which grew by almost 300% from 2003-2007, are well-known. These include the proliferation of 'liar loans' based on false information about borrowers' financial circumstances, and numerous cases where mortgages went into default almost immediately.

As a result, the level of delinquencies in the subprime sector has reached extraordinary levels, with 25% of loans outstanding past due in the first quarter of this year, and 14% of loans in the process of foreclosure. These are much worse levels than in the UK subprime sector, where repossessions of securitised mortgages were running at around 3.5% of the total at the end of 2008, according to S&P. The US subprime sector was also somewhat bigger than in the UK, reaching a maximum of around 15% of the mortgage market, compared to 8-10% in the UK.

But the problem appears to go deeper than this, as payment delinquency has deteriorated dramatically outside the US subprime sector as well. In the first quarter of 2009, more than 6% of prime mortgages were also in arrears, and around 2.5% in foreclosure. These are very high rates historically and in international comparison.

US: Mortgage delinquencies by type



Source : Oxford Economics/Haver Analytics

…including non-recourse loans

Part of the reason why delinquencies and foreclosures have risen so fast even in the prime loan sector may be that underwriting standards in this sector slipped dramatically too, to the extent perhaps that many 'prime' loans were not really worthy of the description. There is some evidence for this in the sharp rise in loans extended at high loan-to-value ratios (LTVs). Loans granted at 90%+ LTVs reached some 30% of the total in 2007.

But similar peaks were reached in 1984 and 1994, without triggering a wave of foreclosures later. The critical factor in causing the explosion of payments delinquencies in the US over the last two years appears to be the interaction of high LTV loans, sharp falls in house prices, and a lack of incentive for borrowers to continue payments once in negative equity.

The level of negative equity in the US has reached very high levels. An estimated 8 million mortgages, some 20% of the total, were in negative equity at the end of 2008, with a further 2 million within 5% of this position (estimates by First American CoreLogic). This is much worse than in previous US housing downturns, due to the much steeper fall in house prices this time around.

Negative equity alone, however, cannot explain the sharp rise in foreclosures. If a borrower can continue to make his payments, there is no reason why he should default, even if he has fallen on paper deeply into negative equity. In the UK, negative equity is thought to affect around 1 million households now (11% of the total), yet repossessions are only running at an annual rate of 40-50,000.

The key difference between the UK and US is that in the US, there is a remarkable lack of incentives for homeowners in many states to remain current on their payments once they are in negative equity. Most US mortgages are *de facto* or *de jure* 'non-recourse' meaning that the lender cannot pursue a defaulting borrower's other income or assets if the realised value of the house, post foreclosure, is not enough to cover the outstanding debt.

This creates a strong incentive for borrowers to simply walk away from their homes once price falls tip them into negative equity. This is especially the case if their initial down payments were small and LTV ratio high – the borrower may lose a few thousand dollars but escape a negative equity position of tens of thousands.

Importantly, the incentive to 'post the keys back to the lender' is still high even if the borrower is able to maintain payments on the loan. This is dramatically different from the UK, where non-recourse loans do not exist. In the UK, borrowers are strongly incentivised to remain in their homes, even in a negative equity situation, in the hope that values will eventually recover. For in case of repossession, borrowers will be vigorously pursued to pay the remaining debt from income or other assets.

In the UK, lenders too are generally keen to proceed to foreclosure only as a last resort, hoping that an eventual recovery in values will prevent them having to crystallise a loss. This is even the case when borrowers are in substantial arrears, as repossession sales almost always occur at steep discounts, often meaning losses for lenders. In the US, the incentives facing lenders in an atmosphere of falling prices may be different – if you believe a borrower may walk away from a loan some months down the line, it may make sense to foreclose early rather than wait and realise less for the house several months later.

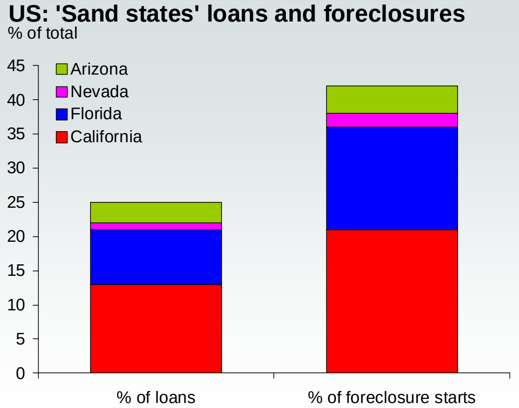
The existence of non-recourse loans, and their growing importance over the years, probably goes a long way to explaining why foreclosure activity has always run at a much higher rate than in the UK, and why it has been on an apparent upward trend over the last thirty years.

Important regional dimension in the US

The crucial importance of negative equity in generating the wave of US foreclosures can be seen by examining regional trends in the US housing market.

The US housing bust has been strongly concentrated in a small number of states, especially the so-called 'sand states' of Arizona, Nevada, Florida and California. These states account for about 25% of mortgages, but a startling 40% of foreclosures. They are also the states were house price falls have been steepest, with peak-to-trough falls of 40-50% to date, compared to a national average around 30%.

US: 'Sand states' loans and foreclosures

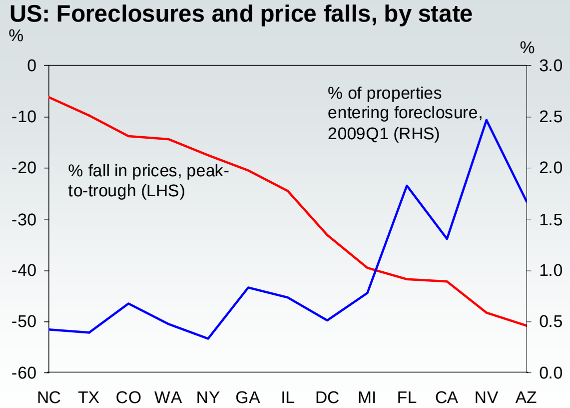


Source : Mortgage Bankers' Association

Prior to the bust, these states had enjoyed massive housing booms that had pushed prices up sharply. This had a number of deleterious effects, including encouraging an explosion of high LTV mortgages and a more general relaxation of underwriting standards, sucking significant numbers of speculative investors into the housing market, and inducing a sharp rise in new housing construction.

Once the market turned and prices began to fall, payments discipline deteriorated very rapidly as negative equity became widespread, exacerbated by the surge in foreclosure sales which drove down prices still further. By the end of 2008, the share of mortgages in negative equity was estimated at 30% in Florida and California, 32% in Arizona, and a staggering 55% in Nevada.

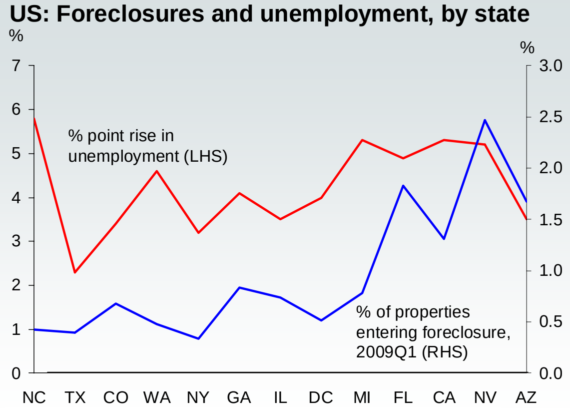
US: Foreclosures and price falls, by state



Source : Case-Schiller, NY Fed, Mortgage Bankers' Association

In the first quarter of 2009 between 1.5% and 2.5% of properties in these four states entered the foreclosure process. By contrast, foreclosure activity was much lower in Q1 in states where price falls have been more modest, such as North Carolina, Texas, Colorado or New York State.

US: Foreclosures and unemployment, by state



Source : Case-Schiller, NY Fed, Mortgage Bankers' Association

The relationship between price falls at the state level and rises in unemployment is much less strong. Some states with big rises in unemployment, such as North Carolina and Washington, have seen relatively low levels of foreclosure activity. Meanwhile Arizona, where unemployment has risen at a relatively moderate pace, has seen high levels of foreclosure.

So great has the problem of foreclosures become in California and some other states, that there is now evidence that lenders are refraining from placing foreclosed properties on the market, preferring to rent them out, rather than risk prices being pushed down even further - triggering yet another wave of payments delinquencies. Already in the fourth quarter of last year, foreclosure sales accounted for 55% of all resales in California.

Conclusion

The rise in US home foreclosures over the last two years is without historical precedent, and appears to go beyond what can easily be explained simply by macroeconomic developments. The levels of arrears and especially foreclosures are also much higher than in other countries suffering housing downturns, especially the UK.

The dramatic increase in mortgage delinquency in the US appears to be the result of a complex interaction of a sharply worsening economic environment, large scale falls in nominal house prices, and key structural features of the US mortgage market.

Two key features we identify are a rather slow fall in the interest burden of borrowers, and a major loosening of underwriting standards among lenders in the period just before the housing bust. These factors, combined with rising unemployment, created the initial conditions for a sharp rise in arrears and foreclosures. By contrast, in the UK, the level of arrears and repossessions appears to have been held down so far by a big fall in the interest burden. Both are likely to rise in the quarters ahead, but may well fail to regain the peaks of the early 1990s.

More important still has been the development of large scale negative equity in the US, which given the widespread existence of non-recourse loans, has encouraged many borrowers to stop servicing their mortgage debts and simply walk away. Negative equity problems are especially acute in the so-called ‘sand states’ of California, Florida, Arizona and Nevada, which also account for a disproportionate share of total foreclosures.

The correlation between the extent of price falls by state and the level of foreclosures is much stronger than that between foreclosures and rises in unemployment, which strongly supports the idea that borrowers’ walking away from their debts is a major driver of foreclosures.

So serious has this problem become in some parts of the US, that lenders are reportedly holding back foreclosed properties from the market for fear of pushing prices down further and generating more payment delinquency. This has created a so-called ‘shadow inventory’ of unsold homes on top of the already-large official inventory. Eventually these will have to be released into the market, suggesting further downward pressure on US house prices in the quarters ahead.

In the UK, incentives for home owners to remain in their homes are, by contrast, very strong. Lenders too are reluctant to proceed to repossession except as a last resort, even if borrowers are in arrears, to avoid being obliged to crystallise losses. With house prices down 20% from their peak, negative equity is also becoming a significant problem in the UK, but its impact is likely to be somewhat different than in the US. Rather than proceeding in many cases to repossession, in most cases its existence will rather result in home owners being unable to move, contributing to a low level of housing transactions. This will probably mean less abrupt falls in house prices than in the US, but may also mean that the adjustment process in the UK housing market will be more drawn out.