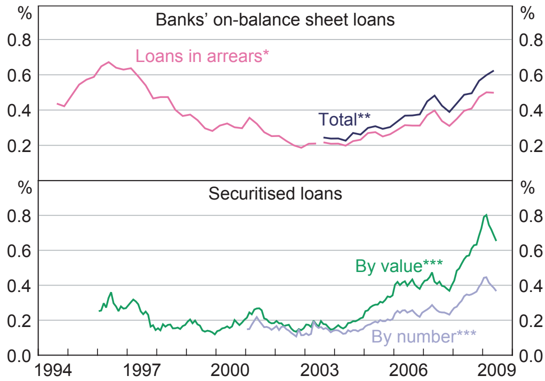
Box B: Measurement of Housing Arrears

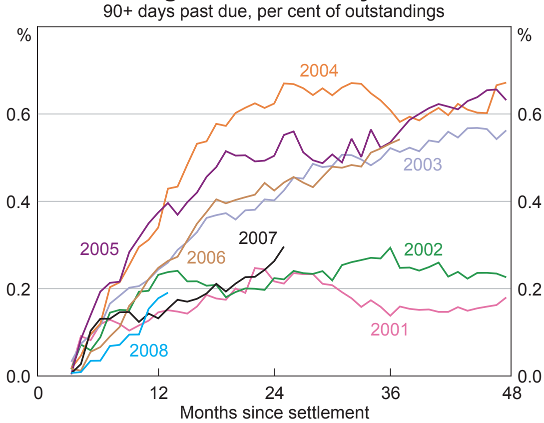
Whenever a borrower misses a payment on a loan, or does not make their required payment in full, they fall into arrears. Given the importance of housing mortgage debt to both household and financial institution balance sheets, the share of housing loans that are in arrears is a crucial indicator of household financial distress and of potential future losses to lenders. The origin of the financial crisis in US mortgage markets has increased the focus on arrears rate data. There are, however, numerous measurement issues that can complicate both cross-country analysis and assessments of national trends. These issues have probably artificially boosted reported arrears rates in Australia somewhat of late, especially those based on securitisation data.

Graph B1
Non-performing Housing Loans
Per cent of outstandings



* Loans that are 90+ days past due but otherwise well secured by collateral
** Includes 'impaired' loans that are in arrears and not well secured by collateral
*** Prime loans securitised by all lenders, 90+ days past due
Sources: APRA; Perpetual; RBA; Standard & Poor's

Graph B2
Housing Loan Arrears by Cohort*
90+ days past due, per cent of outstandings



* Prime loans securitised by all lenders. For each annual cohort, individual months' arrears rates are weighted by the value of loans outstanding at each age. Includes 'self-securitisations'.
Sources: Perpetual; RBA

Aggregate housing loan arrears rates can be measured either as a share of the number of housing loans, or as a share of their total value (Graph B1, bottom panel). When assessing household distress, the arrears rate by number is the better measure; when considering the implications for lenders' balance sheets, the rate by value is more relevant. Arrears rates are typically greater by value than by number, because loans in arrears tend to be larger than average. Borrowers tend to fall into arrears in the first few years of the loan, before much principal has been paid down (Graph B2). The effect of this on measured arrears rates is amplified because average new loan sizes tend to increase over time, relative to the average size of loans already outstanding, as nominal housing prices and incomes rise.

The criteria for defining a given loan as being in arrears can differ across countries and lenders. In Australia, housing loans are defined as non-performing if they are either 'past due' – where repayments are at least 90 days past due, but the loan is well covered by collateral – or 'impaired' – at least 90 days past due or not in arrears but otherwise doubtful, and the loan is not well covered by collateral. Data from authorised deposit-taking institutions (ADIs) record both past-due and impaired loans on their balance sheets; in contrast, data on securitised loans only cover loans in arrears, whether the collateral is sufficient or not (Graph B1).

Lenders take varying approaches when designating a loan as being past due. In the 'scheduled balance' approach, the lender takes prepayments into account when calculating the total amount of payments that are behind schedule; this is the approach required by APRA for data collected from ADIs, and it is also used for securitised loans by some non-ADIs. In contrast, a 'missed payments' approach is used for other securitised loans, where a lender simply counts the number of missed payments, even if the borrower had previously made extra repayments. This is a stricter approach that probably biases these lenders' reported arrears rates up slightly, especially in Australia where many borrowers make prepayments ahead of their normal schedule.

The interpretation of arrears rates based on securitised loan data is also complicated by the lack of new securitisations over the past two years. The pool of these mortgages has dwindled from 26 per cent of all mortgages in mid 2007 to 13 per cent at present, and its composition is now less representative of the overall Australian mortgage market. As such, it is becoming a less reliable guide to trends in mortgage arrears. In addition, as has been noted in previous *Reviews*, there has probably also been some inflation of securitised loan arrears rates due to the declining flow of new loans into this pool: in Australia the practice has been that only loans with 'clean' payment records are eligible for securitisation. The upward effect of this on arrears rates is likely to diminish, however, as the pool of securitised loans ages, given that the peak time for arrears is in the first few years of a loan's life.

The disruption to securitisation markets and exits of some lenders from the market have probably had knock-on effects that might have boosted the arrears rates experienced by ADIs. Firstly, some existing ADI customers might be remaining on ADIs' books as non-performing loans, because they are no longer able to refinance with an alternative or non-conforming lender. Secondly, as ADIs increase their market share and absorb the business of exiting lenders, they are probably picking up some higher-risk customers that previously tended to borrow more from loan securitisers and other alternative lenders.

Sharp changes in interest rates can also distort reported arrears rates. The number of days in arrears is generally measured by dividing the accumulated arrears by the current monthly repayment. When variable mortgage interest rates fall, the required repayment also declines. If the move is large enough, a borrower that was two monthly payments in arrears before the rate decrease, could be defined as three months in arrears on the basis of the new, lower, required repayment amount. While this factor does not appear to have boosted arrears rates in

Australia – perhaps because the effect of the lower repayment burdens has more than offset it – in the United Kingdom it is thought that this made a large difference to reported arrears rates. In response, the UK Council of Mortgage Lenders has shifted its focus to arrears rates based on a threshold of the arrears being at least 2.5 per cent of the outstanding balance.

Even without measurement issues distorting the data, the implications of a given arrears rate will vary across countries and depend on other factors. If the legal system and lender practices encourage early foreclosure (as in the United States), this will depress arrears rates as foreclosed loans are repaid with the proceeds from the sale of collateral, but the share of households that have been affected, for a given level of arrears, will be greater than in other countries. Both households and lenders will be affected by the propensity of loans in arrears to progress to actual default and foreclosure. This will in turn depend on the willingness of lenders to modify loan terms, the availability of other sources of finance for refinancing, and the scope to sell the property given current market conditions.

An important factor determining the risk of loss to financial institutions is whether the collateral can cover the full loan amount.[1] For this reason, the greater the share of loans in arrears that are also impaired, the greater is the risk to the lender. In Australia, around one fifth of non-performing housing loans are considered impaired; in the United States the historical average is closer to two thirds. This difference implies that the riskiness of the US mortgage loan book would be greater than in Australia, even if arrears rates were equal and consistently measured.

1 *Other measures for reducing lender's risk such as mortgage insurance arrangements are also relevant.*