

Bridging the Gap – Pre-Delinquency Actions and Interest Rate Susceptibility in Mortgage Portfolios

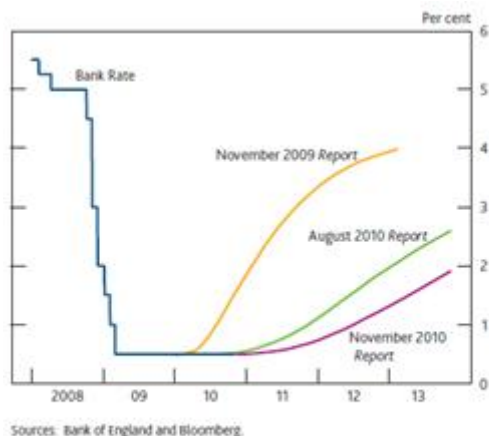
Overview

This paper presents research and findings from work carried out by Euristix in the area of pre-arrears customer management in mortgage portfolios. The focus is on the identification of at-risk accounts and the implementation of pre-delinquency mechanisms to support customer service and mitigate arrears. Particular focus is given in an accompanying appendix to understanding those accounts with the highest level of susceptibility to payment shocks driven by interest rate rises.

Challenging Market and Economic Conditions

The UK mortgage sector is facing an interesting confluence of market conditions which present a unique challenge to lenders. A number of factors, ranging from regulatory mandates and changing consumer attitudes to the competitive landscape and the economy, have all impacted on the shape of the mortgage sector.

Beginning with the economy, there is no doubt that the UK outlook remains subdued, with few signs of an imminent recovery. For mortgage lenders however this fact represents a double-edged sword. On one hand, there are several negative aspects to the latest developments; falling house prices and squeezed consumer financial circumstances in particular have the potential to drive losses. But while the economy remains depressed the likelihood of interest rate rises diminishes and this fact alone is hugely important in maintaining low arrears levels.



(a) The November 2009, August 2010 and November 2010 curves are estimated using overnight index swap (OIS) rates in the fifteen working days to 4 November 2009, 4 August 2010 and 3 November 2010 respectively.

Figure 1 – Development of Interest Rate Forecasts

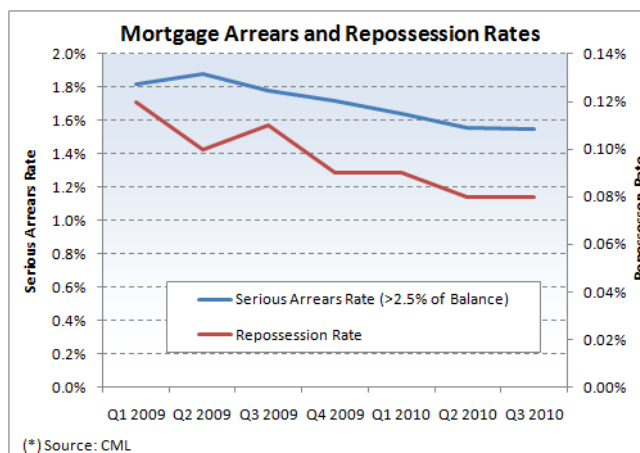
At the end of 2009 there were strong indications that the UK might face an imminent and relatively steep rise in the Bank of England base rate, triggering a corresponding spike in mortgage arrears. However, as the economy developed this view shifted to one in which interest rates remain low for longer and recover at a slower rate. While indicative of a more sluggish economic recovery, this respite would

provide mortgage lenders with more time to understand the rate susceptibility in their book and put in place any mitigation plans. Now however, with inflationary pressures looming, interest rate increases are again appearing more imminent and lenders need to put their defences in place now.

The importance of the current low interest rates cannot be overstated. The economic situation for the vast majority of UK consumers remains bleak; inflation continues to outstrip wage growth, credit remains scarce and many households are seeing non-discretionary expenditure rising. Yet, even against this troubling background, mortgage arrears and repossessions continue to fall. Improved collections processes within the mortgage industry, higher levels of forbearance, and better consumer education will all be contributing factors. In addition, new originations have been limited and many of the most stressed accounts will have faltered and been dealt with during the initial phase of the Credit Crisis in 2008. But there is no doubt that the low base rate is shielding many homeowners from the worst effects of the economic environment, and protecting the mortgage industry from far higher levels of arrears.

Figure 2 – Arrears and Repossession Rates

The arrears picture for mortgages appears positive, with consecutive falls in both serious arrears and repossessions in the last five quarters. However, as stated by the FSA¹, there is a fundamental concern that “the true scale of affordability-related issues for existing borrowers remains masked by historically low interest rates”. It is this fact that makes understanding the susceptibility of a portfolio to interest rate rises and the implementation of proactive pre-delinquency processes key for mortgage lenders.



There are two other major factors at work on the sector, both of which are also driving increased focus on customer and arrears management. The first is the steep reduction in origination and redemption activity. With fewer accounts coming onto the book and with the average lifetime of existing accounts growing, many lenders are focussing increasingly on back end processes. Resource is being redeployed from the front end to support customer management initiatives, enabling many lenders to plan and implement new processes which might not have been prioritised during a high origination cycle.

The second key factor is regulation. Guidelines and legislation introduced under the Treating Customers Fairly banner will impact across the business, but will have a particular onus on

¹ FSA Mortgage market review on Responsible Lending, July 2010



customer management and arrears. Regulators will need to see evidence of strong processes in place to deal with customers who may be having payment difficulties, with the individual customer's circumstances taken into consideration when determining actions. In light of this, many lenders are looking to strengthen and refine these aspects of their business. Particular regulatory focus is being given to affordability assessment. Historically many lenders have considered a borrower's affordability only at the point of origination and only relative to the initial rate, even when this corresponded to historically low base rates or a discount period. Assessment of the impact of rate increases was rarely carried out, although this will undoubtedly now change.

Pre-Delinquency – Bridging the Gap between Customer Management and Collections

Against this background there is a strong impetus for the incorporation of pre-delinquency actions within the customer management cycle. The aims of pre-delinquency are simple; to identify customers who are experiencing financial difficulties, or are likely to do so in the near future, and to contact them before arrears actually occur. The goals are to proactively contact these customers to understand their circumstances, provide education and guidance, and take mitigating action where possible. Pre-delinquency bridges the gap between customer management and arrears, building a relationship with precisely those customers who are under most stress.

While this is certainly a valuable exercise purely from a Treating Customers Fairly perspective, the benefits go beyond this for both the business and its customers. Many consumers are confused and worried about their finances and can be greatly relieved to discuss this situation with their mortgage lender, especially as the conversation at this point is a customer service not a collections process. A review of their finances can help a customer regain an element of control and understand that they do have the power to address some of their problems. Borrowers can also be guided towards the various independent advice centres if this is appropriate for them.

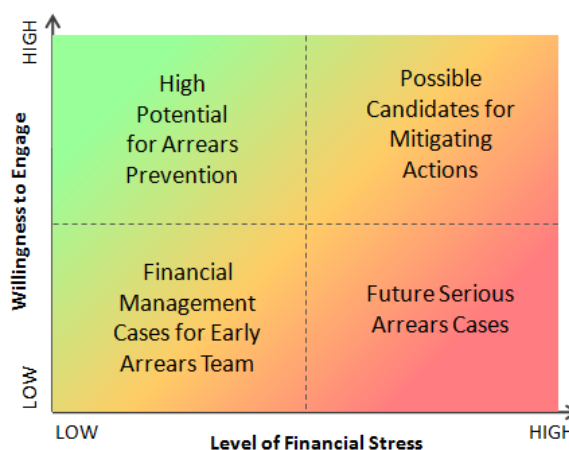
For the lender this activity can actually reduce the incidence of arrears in some cases. Educating the customer as to the importance of keeping up to date with their mortgage and the consequences of non-payment can help the customer prioritise these payments. An income and expenditure review can highlight areas of outgoings that the customer did not fully recognise and that they can take steps to control and reduce. Additionally, a customer engaged through a pre-delinquency process is more likely to contact the lender at an early stage in the future if further problems arise, again helping to reduce a roll to arrears.

Of course the truth is that many customers successfully contacted through pre-delinquency actions face financial difficulties that cannot be overcome through such a light-touch approach.

Many are facing changes in circumstances that have left them overstretched, either in the short term or more permanently. While there are mitigating actions that can be taken, and these will be discussed later, there will be a number of pre-delinquency cases that do roll to arrears. But the evidence is that the cure rates for arrears cases is stronger when pre-delinquency conversations have taken place; the relationship between lender and borrower is more successful if it begins as a customer service activity rather than starting only when collections action is required.

Figure 3 – Customer’s Willingness to Engage

Much of the success of pre-delinquency activity depends on the willingness of the customer to engage with the lender, as well as the level of financial difficulty faced. Many consumers actually welcome the chance to discuss their financial problems if the lender approaches the conversation correctly, which in turn informs the appropriate actions to take. There will be cases where the customer is not willing to engage in this type of conversation and these accounts will need to be managed through traditional collections activities once the financial difficulties crystallise as missed payments and the account falls into arrears.



It is important to reiterate that pre-delinquency activity which takes place when an account is up to date has a customer service remit, even if undertaken by collection’s staff. As shall be seen later, it is possible to design and implement sophisticated triggers to identify financial stress in non-arrears cases, but there will be occasions when a false-positive is generated and pre-delinquency contact reveals no imminent payment problems. It is important that all contact and processes at a pre-delinquency stage are designed to strengthen the customer relationship, build a good brand image and ensure mortgage payments are appropriately prioritised in the customer’s finances. Note however that these contacts, whether they identify at-risk accounts or not, provide the lender with a perfect opportunity to refresh their risk-related information for customers, from income, employment and marital status to the details of the repayment vehicle for interest only deals.

As an extension of this, it should be stated that while pre-delinquency is a valuable tool that provides a link between customer management and collections activity, it presupposes that the collections processes are in shape. A pre-delinquency mechanism only makes sense in an organisation that has a collections operation that can make use of the gathered information and integrate it flexibly into arrears management. If there are significant holes in the current



collections process then these should be addressed before any significant investment is made into pre-delinquency.

Who to Target - Identifying Those in Financial Difficulties

Pre-delinquency activity is a relatively intense customer management action requiring the individual treatment of customer's situations. It is neither feasible nor desirable to contact huge numbers of individuals in this way. The key is to successfully identify those borrowers with the greatest propensity to encounter problems in the near future and to focus on this group. There are a number of indicators and trigger mechanisms for financial stress, usually based on a combination of statistical analysis and business intelligence. The over-arching aims are to target a core number of at-risk accounts, minimise the false positive rate, and ensure there is resource and processes in place to manage these individuals sensitively.

Designing a pre-delinquency framework should be an intuitive process. The mechanism should be subject to the standard controls for a decision tool – champion/challenger tests, supporting MI, 'what if' analysis and so forth – but the design process itself does not need to be complex. Based on the data available to the business it should be straight-forward to create the initial set of rules and triggers which can then be refined over time. The following list describes some of the pre-delinquency criteria successfully deployed by mortgage lenders in the UK:

Inbound Contact – Obviously, the easiest way to identify borrowers under financial stress is if they contact you to tell you themselves! While the borrower may directly raise their financial issues, they may also contact the lender to enquire about extending the mortgage term, switching to interest only, or requesting a payment holiday for example. All of these should act as triggers for a more detailed and frank conversation between the two parties. At its simplest, the pre-delinquency process flow consists of identification, contact, management and follow-up, and incoming contacts can bypass the first two stages automatically. These accounts should be passed directly to the customer service team with the remit for pre-delinquency management and can be routed through the standard evaluation and treatment routines.

Previous Arrears – If an account has recently exited arrears and returned up-to-date then clearly there is evidence that this customer has already been experiencing problems. There is strong evidence that on-going management of these cases can reduce further incidence of arrears when compared to simply returning these customers to the general 'up to date' group. While such customer management falls within a pre-delinquency remit, the conversations and options may differ based on the actions that have already been taken on the account during collections.

Behavioural Changes – There are a number of ways in which a borrower can exhibit a change in behaviour without falling into arrears, and as is often the case in risk management, a shift in behaviour can be cause for concern. Examples of such changes include a movement of the usual



payment date or a change in the method of payment, particularly if this involves payment by credit card. Another example could be a consistent over-payer starting to make only contractual payments or even beginning to erode the credit they have built up. While there may be innocuous reasons for all of these behaviours, they all provide evidence that the borrowers circumstances may be changing and a customer service contact at this point is highly recommended.

Propensity Models – As with any identification problem, it is possible to build statistical models to assess the likelihood of a given account entering arrears in the near future. While such tools may prove valuable, especially for large portfolios, care must be taken with variable selection and sample design. Including accounts that have only recently exited arrears for example will result in a rather uninformative model which predicts that customers who were recently in arrears are most likely to return! However, if the available data is rich and the models are specified carefully then this can be an efficient way of assimilating a broader spectrum of behaviours.

Bureau Triggers – For many consumers, missed payments on their mortgage is preceded by worsening performance on other credit accounts. Similarly a borrower who is showing increasing desire for additional credit lines elsewhere is either in danger of becoming over-stretched or is already stressed and is looking to borrow more to cover existing commitments. All of these serve to highlight the potential benefit of using bureau triggers within at-risk account identification. While it is certainly possible to subscribe to alerts from the bureau (at a cost of course), it can be equally powerful and more cost effective to track changes in behavioural bureau information that is already received by the business.

Bureau information can be very detailed and the key here is to identify the trends and behaviours most representative of at-risk accounts and deteriorating circumstances. Statistical analysis of the characteristics against an outcome based on future roll to arrears is certainly useful, but so too is an intuitive and experienced view of what to consider. Obvious flags include the appearance of new arrears on other credit accounts or an increasing number of applications for new credit. Other candidates could be increasing utilisation of revolving credit lines or the switch from full payment on credit card balances to partial or minimum payment.

Subscription Increase – The final clear candidates for pre-delinquency consideration are those borrowers who are facing a subscription increase. As we shall see, shocks to a consumer's affordability situation are the biggest current cause of mortgage arrears. While a reduction in income is one common driver of this, so too is a rise in outgoings, including the increase in required monthly mortgage payment. This specific pre-delinquency area will be discussed in more detail in the appendix included at the end of this paper. Suffice to say, borrowers who are currently managing to support their monthly subscription may go on to struggle if this amount

increases, whether this be due to an external base rate rise or reaching the end of a discount period.

The categories above outline some of the standard types of pre-delinquency triggers, but the list is by no means exhaustive. A given lender may have a specific regional exposure that dictates a sensible pre-delinquency action. For example, if a major employer in the region announces heavy redundancies and the lender is aware that a number of their borrowers have listed this company as their employer, then this may trigger an outbound customer service contact. Similarly, past origination activity may be grounds for a pre-delinquency trigger; if there is a high arrears and loss rate amongst high LTV self-certified mortgages written during 2006 and 2007 then this group is a prime candidate for pre-delinquency activity.

The rule set can be as simple or as complex as the lender desires, and can grow and evolve as strategies are tested and the value of the activity becomes apparent. Within a good identification mechanism for at-risk accounts there will be three key factors which will naturally act to constrain and direct the growth of the system; the false-positive rate, the specificity, and the level of trained resource.

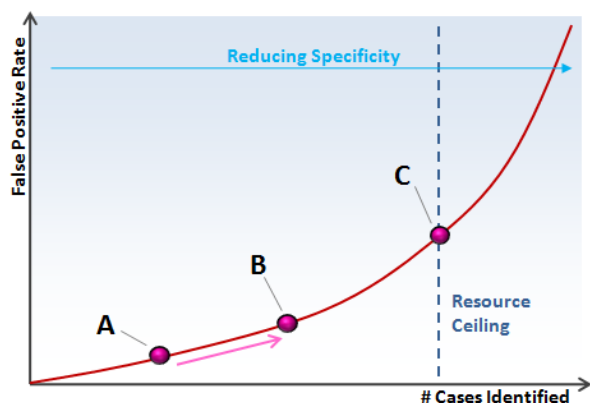


Figure 4 – Pre-Delinquency Process Constraints

Design of the pre-delinquency triggers involves balancing the scope of the mechanism (wide enough to identify sufficiently many at-risk accounts) against the inherent constraints. Figure 4 represents the trade-off curve for a hypothetical lender. As the scope of the pre-delinquency triggers broadens and more cases are identified, the associated false-positive rate rises and the

specificity of the rules diminishes. The business may begin with a small and very specific set of rules which identify a group of at-risk accounts with a very low false-positive rate (point A). As learning increases and the value of the activity is proven, the lender may broaden the scope, with an understanding that the false-positive rate is likely to rise (point B). Whatever their appetite for this activity, the lender cannot move beyond the resource ceiling (point C) without investing in training or recruitment. More details on these inter-related constraints are provided below.

False positives occur when an account is flagged as being potentially at risk but further investigation proves that this is not the case. No identification system is infallible and there will always be such cases; one of the primary goals of an initial pre-delinquency contact is to establish the presence and the extent of any financial problems that the borrower is facing. Inbound calls and previous arrears cases are less susceptible to this, but other trigger



mechanisms such as behavioural changes and propensity scores will generate false positives. As the scope of the pre-delinquency triggers broadens then the number of at-risk cases contacted will grow, but so too will the false positive rate. Maximising at-risk identification and minimising false positives while remaining within the bounds of system and resource constraints is the crux of pre-delinquency trigger design.

The simplicity and clarity of the reason behind a pre-delinquency trigger can be described as its *specificity*. A high specificity helps to dictate the nature of the initial customer service conversation and directs the discussion with the borrower. A call to a borrower who has recently exited arrears is very specific, while a deterioration in a consumer's bureau information is less so. One of the largest disadvantages in using statistical propensity models to identify at-risk accounts is the low level of specificity associated with such triggers; it is very difficult to use a low internal score to inform the conversation with the customer. Generally, the level of specificity is inversely proportional to the scope of the pre-delinquency process, with broader rules which capture more accounts being less specific than a tight, highly focussed rule set.

The final natural constraint on pre-delinquency activity is the availability of suitably *trained resource*. This is particularly pertinent when a new pre-delinquency process is being introduced into the business. The conversations that can occur as a result of a pre-delinquency contact can be difficult and there are regulatory guidelines that need to be adhered to. Within the framework of customer service activity the assigned staff may still find themselves dealing with customers facing substantial financial difficulties, and the conversations need to be tailored to each borrower's needs. Resource from both customer management and collections teams may be suitable to undertake pre-delinquency activities after appropriate training, although there is an argument that a collections background is more useful when dealing with financially stressed customers. However, it is important that the trigger mechanisms and rules in place do not generate more cases than the trained resource can handle.

A useful by-product of the development of pre-delinquency resource within the business is that this team provides flexibility in times of high volume collections activity. This is especially true if the pre-delinquency team is sourced from the collections department or has a collections-based background. When there is a peak in arrears cases, either through seasonal drivers or some other factor such as base rate rises, the business has the flexibility to scale down pre-delinquency action and temporarily deploy this resource in collections and arrears management. Once volumes return to normal the team can return to their primary pre-delinquency role.

Relate, Educate, Mitigate – Pro-Active Pre-Delinquency Management

Assuming the decision rules are in place and the pre-delinquency activity is successfully underway, then this will generate contacts with borrowers who are facing financial stress. This is

the point at which the lender has the opportunity to affect change by managing the customer in an appropriate way. The suite of actions available in a pre-arrears stage is relatively restricted and must continue to represent a customer service, but the effectiveness of simply engaging with the customer at this early opportunity should not be underestimated.

Relate - The first and most important step in the management process is to understand the customer's situation. Not only does this stage help identify and eliminate any false positives generated by the identification mechanism, it provides the groundwork on which the customer interaction should be based. If a customer is under financial stress then it is imperative to understand the cause and scope of these difficulties, as well as understand if this represents a long-term or temporary situation. This will allow the pre-delinquency agent to relate to the customer and to take the most appropriate actions.

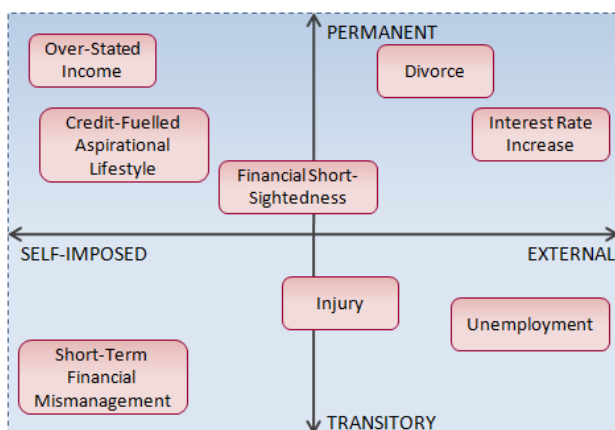


Figure 5 – Possible Sources of Financial Stress

There are numerous causes of financial stress ranging from external factors such as job loss to the customer's own financial myopia. Some of these financial difficulties are relatively short-term while others are a permanent change of circumstances. Part of the pre-delinquency process is to understand where a given customer lies in this space,

as this will determine the appropriate actions to offer and the overall outlook for the account.

Research published by the free advice sector (Shelter, the Citizens Advice Bureau, Advice UK)² indicates that the most common cause of mortgage arrears remains a loss of income, either through job loss or some other cause. More than 65% of the cases they investigated claimed a recent loss of income as one of the primary causes of their mortgage payment difficulties. It is interesting to note from a mitigation point of view that more than half of these consumers classified this loss in income as temporary rather than permanent. Following this, life events such as divorce, illness and bereavement constitute the next most common reason for their issues.

Over-commitment and over-indebtedness are cited as triggers for the financial stress in only 10% of cases. There are certainly consumers who have used credit to support a lifestyle far beyond their means and who are struggling now that house price growth has stalled and the credit bubble has burst. And there will of course be self-certified borrowers who over-inflated their own incomes during the application process and are beginning to struggle as the economy turns.

² 'Turning the Tide?' – Advice UK, Shelter, Citizens Advice Bureau, Shelter, December 2009



While currently it remains the case that an unexpected life event rather than over-indebtedness is the most likely cause of issues, there is a strong possibility that this would change if the UK faced significant interest rate rises.

The strength of the relationship that can be established with the borrower at this stage will, to a great extent, determine the success of the pre-delinquency activity. As has already been mentioned, a large part of this will depend on the customer's willingness to participate in such conversations. But the lender can maximise the opportunity by engaging with the customer, understanding the nature of the problems that they face and relating to their situation. Treating customers respectfully, sympathetically and individually during difficult times can do more for the brand and customer loyalty than any slick origination process and can be a deciding factor in how struggling consumers prioritise what funds they do have.

Educate – One of the simplest and most effective pre-delinquency actions is simply to educate borrowers. There are a number of aspects to this, from helping them understand their own finances to guiding them towards independent sources of aid, but one simple step is to clarify the consequences of non-payment on their mortgage.

It can often be assumed that consumers understand fully what it means to miss mortgage payments, but re-iterating this message can be helpful. Explaining the end-to-end collections process, including the possibility for repossession, can galvanise borrowers to face the financial issues that they have been trying to ignore or deny. Borrowers may not realise for example that entering arrears will impact their credit bureau data and that this information will remain on the file for three years. An understanding of these facts can help a customer realise that they should attempt to take control of their finances sooner rather than later, allowing them to avoid entering arrears entirely.

It is vital that this information is imparted in a helpful and supportive manner. The intention is not to frighten or threaten borrowers into making payments, or to add to their existing levels of stress. The aim is to ensure that the consequences of missed payments are understood and the next steps of the process are clear. For borrowers with the capability to adjust their lifestyle and spending, this can help them realise the importance of this and avoid the negative impacts of allowing missed payments to occur. For those whose situation is more severe, these initial conversations can ease the transition to arrears, build a relationship and trust, and make the job of the collections and recovery team much easier.

Beyond explaining consequences of missed payment, the lender can help the customer understand and take control of their own finances. Gathering income and expenditure information can help the lender understand the situation and the consumer get a clearer picture of their circumstances. Many individuals simply do not understand where their money goes and the cost of certain elements of their lifestyle; categorising this through an I&E exercise not only



provides clarity but may help the consumer identify aspects of their situation on which they can take action.

The final part of the education process is to help the consumer understand where they can turn to for help. It is important to note that the role of the pre-delinquency team is not to offer financial advice themselves, and in fact they should explicitly not do so. Guiding the consumer to regulated and free advice centres such as debt counsellors or the Citizens Advice Bureau, as well as informing them of any government support schemes, will enable the borrower to understand that they do have options for finding aid.

Mitigate – The most difficult area of the pre-delinquency process is in designating the mitigating actions that can be taken on an account. Once it has been confirmed that the borrower is facing financial difficulties and the education piece has been completed, it falls to the lender to decide what actions, if any, are possible on the account. The aim is to reduce the flow to arrears if at all possible while at the same time ensuring that value is not destroyed.

In some situations the financial issue is imminent but has not yet occurred – a prime example being accounts identified as being susceptible to interest rate increases. While unlikely, it may be possible for these customers to overpay their subscription in the short term to cushion the initial impact of rate rises. Others may be able to provide a lump sum payment to reduce LTV values and provide them with access to lower rates, or may even be able to remortgage at a lower or fixed rate. Obviously these are complex decisions and sensitive conversations that must be approached on a case by case basis to derive an appropriate solution for both the customer and the lender. This is one of the reasons why pre-delinquency training is important for any resource dealing with such matters.

As has been discussed earlier, many borrowers may find themselves facing difficulties that are entirely transient, triggered by a temporary change in circumstances or an unexpected one-off cost. In these situations the lender has the opportunity to make short-term concessions for the customer, such as allowing a six month switch to interest only payments or arranging a one month payment holiday. Again it is vital that such actions do not erode value, but used carefully they can not only drive down arrears cases but also build customer satisfaction and brand loyalty.

The main tools available to a lender for mitigation can be classified as short term concessions or long term deal engineering, such as term extension and switch to interest only. The appetite for deploying such tools will depend on the lender themselves; some would rather leave all such actions to the collections and recoveries team once arrears have arisen, while others may want to more pro-actively manage cases at this earlier stage. Regardless of approach it is important to track these actions carefully, ensure problems are not simply being 'hidden' and validate that the activities are not detrimental to the lender's value position.



Customers involved in pre-delinquency who receive the benefits of a mitigating action need to be clearly informed that these steps are discretionary and exceptional, and should not be expected as standard processes in the future. Mitigating actions designed to help a customer with a temporary problem should, by definition, not need to be repeated. If a borrower continues to face payment issues despite pre-delinquency activities then the treatment of this account should revert to the collections and recoveries team, where there is a far wider remit and the full scope of tools are available.

Reaping the Rewards – Pre-Delinquency at Work

It may appear from the above that the creation of a pre-delinquency framework within a mortgage business is a complex and time consuming process. While it is true that the endeavour requires careful thought and a level of expertise, building such a process need not be prohibitively difficult. Beginning with a small, relatively standardised process can bring significant rewards and this can be expanded as learning is accumulated and value is proven.

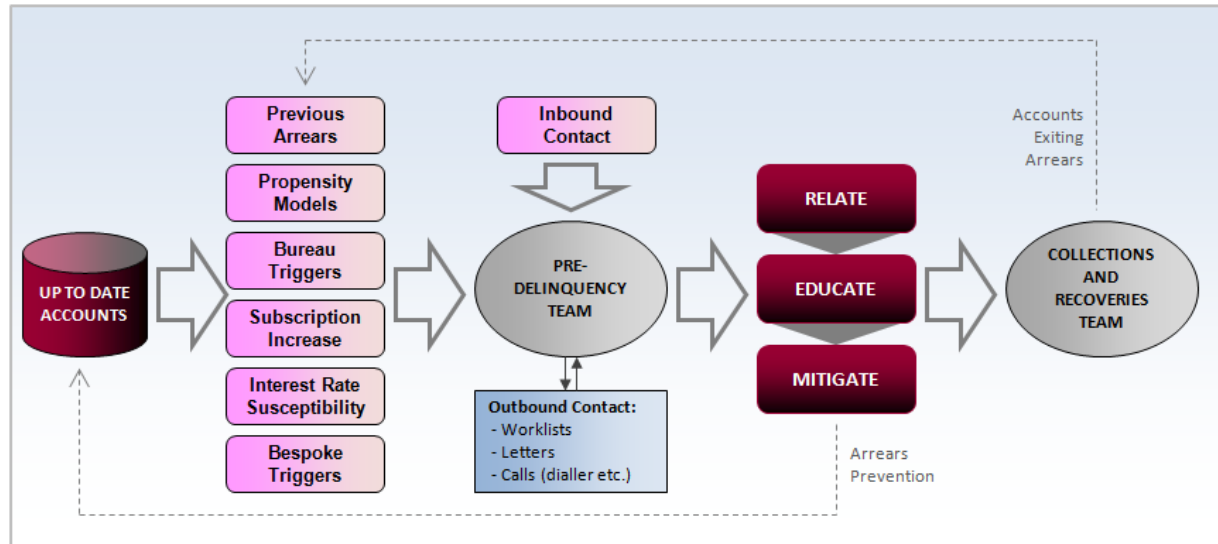
In our own experience it is possible to create an initial pre-delinquency scheme which flags a small proportion of the existing up-to-date portfolio as at-risk (in the region of 2-4% of all accounts), while maintaining a false-positive rate of less than 50%. In other words, upon contacting these individuals, more than half are actually facing significant financial stress with the likelihood of future payment problems. These initial schemes, based on simple and intuitive rules, can be expanded and refined as the performance data becomes available.

A simple, well-managed pre-delinquency process can bring significant benefits to a mortgage business without the need for huge investment. In most cases the framework can be constructed with existing data and within the scope of existing systems. A pre-delinquency management team can be created using resource already available in the business within the customer management and collections teams.

- Reduction in arrears
- Improved cure rates
- Easier collections activity
- Increased customer satisfaction
- Support 'Treating Customers Fairly'

In the current challenging environment lenders need to use all the tools at their disposal to protect and support both their business and their customers. In the face of imminent base rate rises and continued pressure on consumer circumstances, arrears management is at the top of most organisations' agendas. Incorporating pre-delinquency activity within the existing customer management cycle is an obvious step to support this and represents a cost-effective business improvement.

Figure 6 – An End to End Pre-Delinquency Process Flow





Appendix: Identifying Interest Rate Susceptibility in Mortgage Portfolios

As discussed above, there is significant concern in the mortgage industry that a rise in the base rate will trigger a sharp increase in arrears cases. Many believe that the relatively benign arrears and possessions picture being experienced at the moment is almost entirely supported by the historically low rates.

From a pre-delinquency perspective the ideal is to identify those customers who are most susceptible to such rises and undertake the standard processes with them; relate, educate and mitigate. While it is not possible to ameliorate the effects of interest rate rises across the portfolio, simply raising the issue with borrowers can help them to face the issue of payment increases. In addition it will enable the lender to derive a clearer understanding of the scope of the issue within their book and to size the likely future impacts. This analysis provides an understanding of the risk profile of the book under future economic scenarios which in turn supports budgeting and planning for the business.

The management of cases with high interest rate susceptibility falls within the framework outlined in the paper above and will not be covered here. This appendix focuses on the initial problem, the identification of the at-risk accounts in the first place. In addition, this information deals with residential consumer mortgages – similar exercises for large and small Buy to Let portfolios are of course possible, but the methodology differs significantly and is not presented here.

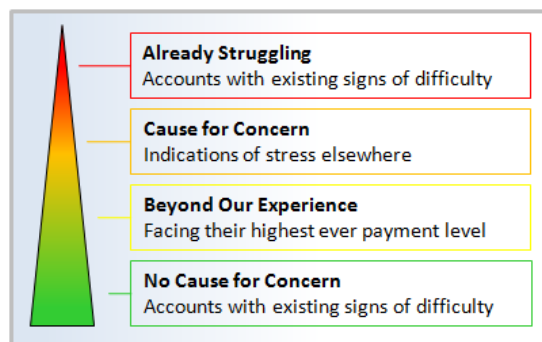
Identifying Susceptible Accounts

In an ideal world, every lender would have access to accurate and extensive income and expenditure data on all their borrowers, enabling them to build a complete affordability picture for each case. The truth is that such data simply isn't available. Even with access to the full range of information from the three main UK credit bureaus there would remain significant gaps in this picture; income information is not supplied and expenditure is focussed on credit commitments rather than on comprehensive outgoings.

So with external data potentially expensive and incomplete, what can lenders do using the information they already have to hand? Can a sensible identification of at-risk accounts be achieved using internal data? As with all pre-delinquency identification schemes, they key is to combine intuitive business insight and logic with data analysis and statistical tools.

Figure 7 – The Identification Hierarchy

When considering which accounts might be most susceptible to subscription increases due to rate rises (and indeed due to any other reason, such as reaching the end of a discount period) there is a hierarchy of indicators that can be considered. Ranging from borrowers already showing evidence that they are struggling through to those who show no source for concern, this hierarchy allows a lender to control the scope of the pre-delinquency process depending on their appetite, levels of resource, degree of concern etc.



The first group of customers are those who, while not in arrears, have clearly already encountered difficulties supporting their subscription at a low interest rate or amount. Classified as **'Already Struggling'**, evidence for this type of customer includes:

- Previous arrears on the account
- Customer has requested or been granted a switch to interest-only
- Customer has requested or been granted a term extension
- Customer has requested or been granted any other concession such as a payment holiday

While there will be exceptions, especially for arrears triggered through something innocuous such as changing bank details, in most cases these behaviours are representative of borrowers who have struggled to support their mortgage payments. As such these are prime candidates for pre-delinquency contact to discuss whether they understand the possibility of increased payment amounts following a rate rise and what this will mean for their circumstances.

Another group of borrowers can be identified not through their behaviour with the mortgage lender, but with their behaviour elsewhere. This type of trigger is only available to those who receive behavioural bureau information of one form or another, but it can be a useful way to detect individuals who may be facing financial challenges but have so far managed to avoid any impact on their mortgage account. The customers showing such **'Cause for Concern'** may be allowing other credit accounts to fall into arrears or may be exhibiting a growing use and need for credit. The trigger may even be as simple as a significant deterioration in a customer's bureau score over a twelve month period for example. With evidence that the borrower is already stretched, it is a reasonable assumption that a rate-driven payment increase would not necessarily be borne successfully.

Once those individuals with current, identifiable problems have been captured, whether through internal behaviours or external information, the task becomes more difficult. How does a lender



isolate those borrowers who are most likely to face problems when they are currently exhibiting no difficulties? One simple method, which has proven very successful, is to consider that the majority of residential mortgage borrowers, particularly when remortgage cases are excluded, will borrow to close to their affordability limits. Based on this assumption it is possible to designate a **'Beyond our Experience'** group whose monthly payments under a positive rate rise would far exceed any payment they have historically supported.

Because of discount periods and the low base rate many borrowers whose mortgages have been originated in the last five years would, under a re-normalisation of interest rates, face payments much higher than they have ever had to pay in the past. The level of this difference can be used to rank customers for the purpose of pre-delinquency activity. The rationale is that if customer A has supported payments of £450 in the past and their new subscription is £500 then they are more likely to manage than customer B who also faces £500 payments but who has only paid at most £250 historically.

Theoretically factors such as inflation and wage growth can be factored into this calculation, but for the purpose of producing a rank ordering of customers a simple calculation using historic data works adequately. The aim is simply to find those borrowers who are facing the biggest difference between future payments under an interest rate rise and any amount they have paid historically. As an illustration of the efficacy such a scheme was applied to identify groups of mortgage borrowers who, despite showing no identifiable problems, represent high risk under rate rises. When contacted more than a third of this group admitted that they would not be able to afford their monthly payments were rates to return to 4.5%.

Those accounts not flagged as 'Already Struggling' and 'Cause for Concern', not high in the 'Beyond our Experience' impact ranking, and which do not hit any other bespoke triggers, can be classified as **'No Cause for Concern'**. This certainly does not indicate that these accounts will not be susceptible to interest rate driven arrears problems, but rather there is no existing, readily available evidence to differentiate these accounts in particular. Should these borrowers begin to find themselves experiencing difficulties as rates rise then other aspects of the pre-delinquency framework will be triggered and these accounts will get treated at this point.

Using the mechanisms outlined above can allow a lender to very quickly target a proportion of their accounts for pro-active pre-delinquency actions. The result of this will in turn enable the lender to begin to understand and size the issue within their portfolio. Customers contacted in this way can be educated and a relationship can be developed to minimise the inevitable impact of the rate changes. The problem cannot be eradicated of course – the impact of rate rises will be felt throughout the mortgage sector and will be the source of many headaches. But the correct use of pre-delinquency can give a business the best chance possible to understand what they face, to reduce the impact to an extent, and to provide the smoothest possible path through the difficult times.