

Criteria Report

Repay my Mortgage? Over my Dead Body! – Fitch's Reverse Mortgage Criteria

London Contacts

Christophe Launay
+44 20 7414 4365
christophe.launay@fitchratings.com

Gregg Kohansky
+44 20 7862 4091
gregg.kohansky@fitchratings.com

Stuart Jennings
Managing Director
+44 20 7417 6271
stuart.jennings@fitchratings.com

Sydney Contacts

Philip Sullivan, CFA
+61 2 8256 0310
philip.sullivan@fitchratings.com

Kevin Stephenson
Managing Director
+61 2 8256 0321
kevin.stephenson@fitchratings.com

■ Summary

This report introduces Fitch's approach to rating securitisations of mortgage-backed equity release schemes in the UK and Australia. As the populations of both the countries age, there is an increasingly broad awareness of the need to develop new ways of releasing personal wealth to the elderly population. Given the large improvements in life expectancy, the cost of healthcare and the potential shortfall in pension provisions, many elderly individuals may have to tap the wealth held in their homes to bolster their income. In addition, the desire of early retirees and others to gain access to cash for lifestyle purchases, such as holidays and home improvements, may also add to demand for such finance.

Equity release schemes are financial products, or sale and purchase arrangements, that allow homeowners to make use of any equity they have in their property. Under the most common type of scheme, the mortgage-backed equity release scheme, a lender gives the homeowner either a lump sum or instalments (or both) on the basis of the value of their home. Lenders will receive their returns when the loan matures, typically on the death or disablement of the borrower. Mortgage-backed equity release schemes are more commonly known as either reverse mortgages or lifetime mortgages. For the purpose of this report, we will define them as reverse mortgages, the term that is more universally used. This report intends to define criteria for securitisation of reverse mortgages, although some aspects of the report may in the future be used in the development of criteria for transactions backed by other equity release products such as reversion schemes.

Early versions of the product were first introduced in the US during the early 1980s, before spreading to the UK in the mid- to late 1980s. The UK equity release market suffered severely as a result of the UK property market recession in the late 1980s and early 1990s, but a revamped product – whose most important new feature was the introduction of the “no negative equity guarantee” – and favourable economic conditions have led to a resurgence in the market in the new millennium. Although the Australian market is still in its infancy, it is mirroring, with a few subtle differences, the developments seen in the UK market over the last few years. Given the similarities, Fitch's UK and Australian RMBS teams have worked closely to develop a coordinated approach to rating securitisations of mortgage-backed equity release schemes in both markets.

Financing an equity release mortgage pool poses several challenges because of the long and uncertain maturity profile of the assets. Securitisation offers a route to tap funds and structure the various risks off-balance sheet in a form attractive to medium-term note (“MTN”) investors. To date, several such securitisations have been launched in the UK and, given the scale of the potential markets, the entry of new originators in both markets and the success of recent transactions, Fitch foresees further deals in both the UK and the Australian markets.

■ Key Risks Overview

The securitisation of a portfolio of reverse mortgages is complex. The related risks may vary according to the loan product features and the desired structure. In relation to the assets, the most significant include:

- The timing of the maturities will typically be driven by the death (“mortality”) or entry into long-term care (“morbidity”) of the borrower, or their decision to repay voluntarily. The time period involved can be lengthy (a 65-year-old will, on average, live for a further 15 to 20 years). Mortality, morbidity and voluntary repayment risk is a critical consideration in any analysis of equity release mortgages.
- The exposure to the residential property market and interest rate risk extends over a much longer and more uncertain period than with regular RMBS.
- The cash flow from a portfolio of these assets is very low early on in the transaction and, as a result, a heavy burden is placed on external liquidity sources in order to meet the required payments.
- The long-term nature of the assets also gives rise to operational risk in that the condition of the properties that form the security could deteriorate after origination, particularly if the borrower is elderly and infirm.
- The target borrowers, elderly people, are a vulnerable group, and, moreover, this product is relatively complex; consequently, the lender may be subject to various strict consumer protection measures.

On the structuring side, the most significant risks surround the availability of counterparties to provide appropriate liquidity to the transaction and to hedge interest rate, and – in the case of variable-rate mortgages – negative equity risks. The structure of such facilities may differ considerably from deal to deal and may therefore require extra transaction-specific supplementary stress testing.

See below, *Key Factors for Reverse Mortgage Securitisations* for more details.

■ Market Background

The key ingredients of a successful equity release market are a sustained strong property market and a substantial elderly population who own their properties outright.

These factors were present in abundance during the mid- to late 1980s in both the UK and the US, and it is no surprise that the equity release market first came to the fore during this period in those two countries. However, this initial growth did not continue into the 1990s. In the US, despite support from the federal government, which provided insurance through the Federal Housing Administration, it was not until the mid- and later 1990s that originations began to gather steam. In the UK, a dangerous combination occurred: the UK property market crash of the late 1980s occurred at a time when equity release products were being sold in combination with investment products – essentially a highly leveraged investment portfolio whose leverage was secured by the investor’s home and, prior to the introduction of the “no negative equity guarantee”, full recourse to the borrower. The subsequent poor performance of the stock market halted growth, forcing lenders to rethink their strategies for this type of product.

The ingredients for the success of equity release programmes are now present again, and strong growth has been noted in both the US and the UK, where lenders have worked hard to clean up the image of the product following the debacle of the early 1990s, implementing safeguards to prevent any repetition. Other less developed equity release markets have also emerged in countries such as Canada and, most recently, Australia, where – despite burgeoning debt levels across the population as a whole – elderly individuals are more likely to own their homes free and clear of debt, and have benefited greatly from the huge boom in property prices over the past five years.

The average property price to earnings ratio is much greater in all these markets than it was a decade ago, offering much more scope for releasing sufficient equity to provide a reasonable income for older borrowers.

The UK Market

In the UK it is estimated that the over-65s hold approximately GBP1,100 billion¹ in unmortgaged property equity. To place this in the context of the overall UK market, as of June 2005 approximately GBP917bn² was outstanding in conventional UK mortgages. In the over-65 age group, however, approximately 90% of properties are owned outright with no mortgage.

¹ Source: *Equity Release Report 2005* from the Actuarial Profession

² Source: Council of Mortgage Lenders (CML)

Total new business from equity release for 2004 was estimated at GBP1,192 million³ (versus GBP127m for 1998). GBP1,151m of this corresponds to mortgage schemes and GBP41m to reversion schemes. Mortgage schemes (with a total balance of GBP4,612m as of end-June 2005, according to CML) now represent the majority of the market, mainly because the recent new entrants are mortgage lenders, and this product is easier to sell for intermediaries, which are now the main source of new originations. The entire equity release market has grown dramatically in the past five years and the potential market is expected to continue expanding, given the erosion of state support for retirement combined with consumers' inertia about saving for retirement and the high and steady proportion of homeowners in the UK.

Nevertheless, this market expansion is still suffering from the relatively low number of players and the absence of some of the larger high street mortgage lenders, such as Halifax and Abbey. As of March 2005, the reverse mortgage market comprised 27 lenders (out of a total membership of the CML of 143²). The annual growth of the market in H105 was 5%² lower than in the previous year and the lowest level since H103². This apparent decline in the growth of the market could be partially explained by borrowers' current expectations about the future of the housing market and, to a certain extent, by some recent negative press from the Financial Services Authority ("FSA") regarding the quality of advice offered to borrowers. (See below *UK Regulatory Environment*) The UK reverse mortgage market is led by Norwich Union (37% market share as of Q2 2005)⁴ followed by Northern Rock and Mortgage Express. Other significant providers include GE Life, Portman Building Society, Hodge Equity Release, New Life Mortgages and National Counties Building Society. They are all SHIP members (19 members in total to date)

The Australian Market

In its publication "*Housing Occupancy and Costs, Australia – 2002-03*", the Australian Bureau of Statistics ("ABS") estimates there to be more than one million unmortgaged households, with untapped property equity in excess of AUD300bn, whose owner occupiers are over the age of 65. Although the Australian equity release market is still in its infancy, Fitch expects it to grow substantially over the next few years. Already in 2005, the number of lenders offering such mortgage products has grown to 12 compared with only six one year previously. The majority of originations to date are held on balance

The UK Experience

The ER product was first developed for the mass market by a number of high street lenders in the late 1980s. The products sold were "Home Income Plans", which targeted borrowers of varying ages. A portion of the funds released was invested, with the income intended to pay the interest on the loan (which was usually floating rate on this product). Any surplus income after loan interest payments was the borrowers' to spend as they wished. The loan was to be repaid from the sale of the property upon the borrower's death or entry into long-term care. Unfortunately, the investments were linked to the performance of the stock market, which was poor in the early 1990s. Moreover, loan repayment was to come from the sale of the property, and property prices fell in many areas in the same period. These factors, combined with high interest rates, meant that borrowers did not have enough income to service their loans and, in many cases had insufficient value in their property to repay the loan. This resulted in a raft of mis-selling cases and many borrowers received compensation payments. These highly publicised problems have left their mark on personal and corporate memories of the ER arena.

Despite this history, the many differences between the situation in the early 1990s and the current market make growth in this market both more likely and safer for consumers. Most products now carry a "no negative equity guarantee" meaning that the risk of house prices falling below the outstanding balance of the loan is borne by the lender rather than the borrower. Additionally, although voluntary, the present regulatory environment is better than in the late 1980s. Following the problems of that period, Safe Home Income Plans ("SHIP") was formed – a trade body charged with regulating the industry. Although membership is voluntary, it provides a benchmark and forum for self regulation – see *UK Regulatory Environment*. Since 31 October 2004, the FSA has taken statutory responsibility for the regulation of the conduct of business in the mortgage industry, including the regulation of reverse mortgages, although not of reversion products. The recent growth in the market suggests that new lenders and borrowers are now happy to enter the market again.

³ Source: Safe Home Income Plans (SHIP)

⁴ Source: SHIP

sheet by the banks, or in privately funded warehouses but Fitch expects securitisation to become a crucial funding tool for some of the recent, non-bank entrants to the market.

Lenders in the Australian marketplace have taken note of previous experiences in the US and the UK market, and have taken steps to implement appropriate safeguards. Early in 2005, four of the current lenders formed the Senior Australian Equity Release Association of Lenders (“SEQUAL”) to enforce self-regulation in the industry. Members of SEQUAL estimate the equity release market to be around AUD400m in 2005. As with conventional residential mortgage lending in Australia, securitisation is viewed as a crucial funding tool for the non-bank lenders.

■ Product Overview

A large number of products have been designed to enable the elderly to release cash from their homes, in the form either of a one-off payment or a series of payments. The “borrower” may either legally sell all or part of the property (a reversionary product), or grant an equitable charge over the property to the lender (a mortgage product). Whichever method is used, the borrower will have the right to live in the property until their death or entry into long-term care. Depending on the product terms, once the capital loan and accrued costs have been repaid, any remaining property equity will usually be returned to the borrower’s estate. The main products and key characteristics are summarised below.

1. **Reverse, Lifetime or Equity Release Mortgages.** This is a one-off payment made to the borrower; the maximum permitted loan-to-value ratio (“LTV”) varies based on the age of the borrower(s); the loan interest is added to the capital loan balance; the lender would take initially an equitable charge over the property and the borrower retains legal ownership; the loan is repaid on the death or entry into long-term care of the last surviving borrower; a “no negative equity guarantee” ensures that the borrower’s estate will not be liable for any amount of the loan not repaid using the proceeds of the property sale; the loans may be portable, subject to maintaining a suitable LTV for the then age of the borrower; the borrower may voluntarily prepay the loan, subject to penalty charges.
2. **Home Income Plans.** The loan described above can be structured as a series of periodic instalments, or drawdowns, rather than as a one-off cash payment.

3. **Line-of-Credit Loans.** This product allows borrowers to take out an initial and then further drawdowns subject to maintaining a suitable LTV relative to their age. Some uncertainty surrounds whether the drawings are subject to consumer credit regulations (i.e. whether each is a separate, and therefore regulated, drawing or part of a single agreement).
4. **Shared Appreciation Mortgage.** The structure of this product is similar to an equity release mortgage, although some of these loans have, in the past, incurred monthly interest charges below the standard rate usually charged. In exchange, the lender takes an equitable charge over the property and agrees to receive a share of any uplift in the value of the property. This may serve as a complete alternative to an interest cost or may simply reduce the interest cost on the loan.
5. **Reversion Product.** The homeowner sells their property, the company takes legal title and grants the homeowner a life tenancy. Advances are generally higher (the LTV for a 65-year-old may be up to 45%), no interest is charged and the company typically takes the full proceeds of the property sale upon the death or entry into long-term care of the homeowner. Some homeowners may sell only a share of their property and therefore retain a share of the equity. Safeguards may be in place to prevent the company from making large, “inequitable” profits if the homeowner dies or enters care within an unexpectedly short time.

As the market matures, more products are likely to develop that combine the features of those above in different ways. Fitch will assess specific products with an issuer on a case-by-case basis. Where the loan may be drawn in several lumps or as income, the agency will pay particular attention to the liquidity implications and compliance with consumer credit regulations.

The remainder of this report focuses on Fitch’s view of the risks surrounding the most prevalent form of equity release product – the reverse mortgage – and the agency’s criteria for rating a securitisation whose underlying portfolio consists of such loans originated in the UK and Australia. The report explains how the agency expects to analyse a cash flow model for the transaction, the input assumptions it makes, and how it stresses the cash flow of a portfolio to test the credit and liquidity support appropriate for its rating scenarios. This report intends to define criteria for the securitisation of reverse mortgages, although some aspects of the report may in the future be used

in the development of criteria for transactions backed by other equity release schemes such as reversion schemes.

■ Key Factors for Reverse Mortgage Securitisations

The key to grasping the rating analysis for a reverse mortgage securitisation is to understand the dynamics of the structure of an individual loan, and then how cash flows operate for a portfolio of such loans.

The important issues to keep at the forefront of any analysis are as follows.

- The maturity of the loans in the pool is dependent on the expected mortality and morbidity rates of the borrowers. These rates are the subject of actuarial studies of the population of borrowers of a particular lender.
- Most loans will not mature for many years (e.g. 15-30+ years); therefore a securitisation must be well-protected against events that could occur over such a long timeframe.
- The amount due under a loan for a regular reverse mortgage will be its initial balance plus interest accrued, or “rolled up”, until the maturity date. This interest may be charged at a fixed or floating rate. Where the interest is at a fixed rate, the amount payable for a given maturity date is easier to calculate.
- Most reverse mortgages now carry a “no negative equity” guarantee. This means that the amount paid out on loan maturity may be lower than the amount due, as described above, and may be limited by movements in the property market, the condition of the property, the effectiveness of the realisation process and the amount of accrued interest at maturity.
- Housing Market Recessions: Any future recession in the economy and the availability of prospective buyers will affect the value realised on a property. As there is no recourse to the borrower, the payments due to the transaction will be heavily dependent on any movements in the property market.
- As with most securitisations, there may be mismatches between the rate of interest earned on the mortgages and the rate of interest paid to bondholders. This risk can be mitigated by entering into derivative contracts. However, given the long-dated nature of the assets in the portfolio and the relative uncertainty of the amortisation profile, few appropriate derivatives may be available in the market.

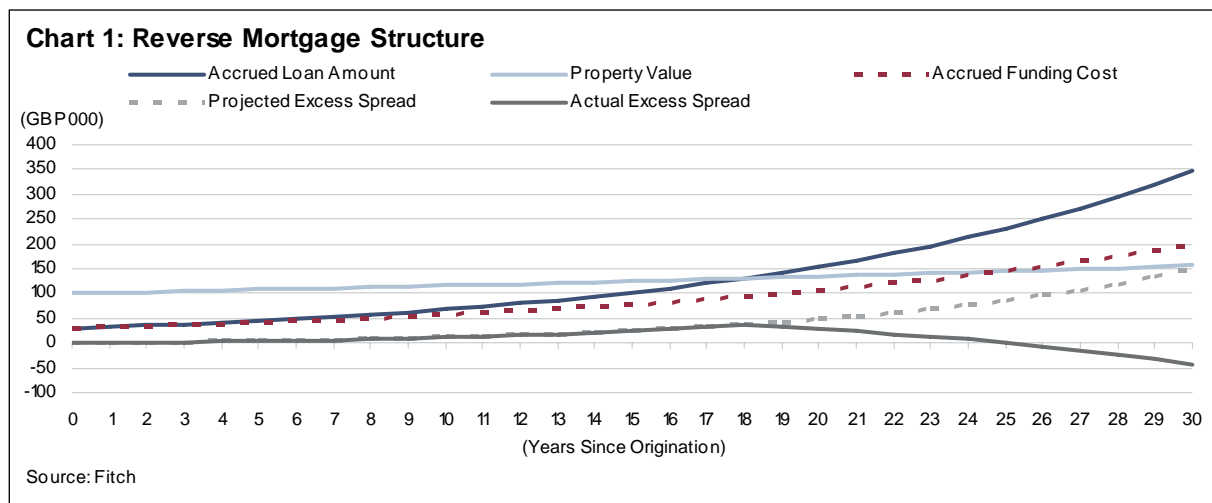
- During the early years, usually the first 10-15 years, very little cash may flow into a transaction, unless there are many voluntary repayments (also known as “prepayments”). Therefore, substantial liquidity is needed to service the interest costs of funding the portfolio. The amount of liquidity drawn – and therefore the cost of liquidity (drawn/undrawn) – can vary dramatically if interest rates shift or payments from property sales are delayed or lower than expected. Accordingly, ultimate credit losses on a portfolio can be highly sensitive to such liquidity costs.
- The reverse mortgage market is particularly vulnerable to reputation and mis-selling risks, which may affect the enforceability of the products, ultimately depressing the portfolio cash flows. Consequently, when analysing a transaction, the agency will look closely at the lender’s origination processes as well as its compliance with its regulatory and legal obligations.
- Dilapidation: The realisation of the property is the only method for recouping principal and accrued interest. It is therefore essential for servicing procedures to be in place which monitor whether the property is adequately maintained over time.

The following sections set out the agency’s approach to the structure of a reverse mortgage and the associated property market, mortality, morbidity, interest rate and voluntary repayment risks.

Typical Loan Structure

An example of a typical reverse mortgage loan structure is set out in Chart 1, which shows a typical loan of GBP30,000 secured against a property with a value of GBP100,000. The loan accrues interest at a fixed rate of 8.5%. It is assumed that the cost of funding this loan is also fixed at 6.5%, and that house price inflation (“HPI”) runs at an annual rate of 1.5%.

Chart 1 shows several performance factors over the period from origination to the point when the borrower exits the loan. The borrower’s exit crystallises the lender’s position into a loss or profit depending on the relative position of those factors. For example, although the initial LTV is 30%, because, in this case, the loan amount accrues at a higher rate than HPI, the amount due exceeds the property value by around year 17. If the borrower remains in the property beyond this time, the lender will receive less than is due on loan maturity.



The chart also shows the equivalent rolled-up cost of funding the loan at a wholesale money rate. In addition, it includes a projected excess spread value, which is the difference between the amount due on the loan and this funding cost (i.e. assuming that no losses are made as a result of negative equity in the property at termination).

The chart shows that, once the property value falls below the loan amount due, the actual profit, i.e. the excess spread captured, also starts to decrease. At this stage, the borrower is not liable for the shortfall under the no negative equity guarantee but, despite the shortfall, the lender may still not make a loss on the loan. Only once the property value falls below the rolled-up value of the loan does the lender make a loss upon termination – about year 25 in this example. After that, the loss increases sharply the longer the borrower survives.

It is also worth noting, with respect to Chart 1, that very limited HPI appreciation has been assumed. If the gradient of the HPI line is increased, the scenario

is much more beneficial for the lender. By contrast, the funding cost has also been assumed to be fixed at a modest rate, when in reality it may be more volatile.

If funding costs are variable and any periods of higher interest rates ensue, the accrued funding cost line will shift upwards, and may even cross the loan amount line – with highly adverse consequences for profit/loss. The interaction between movements in property prices, the time to loan maturity (on the borrower’s death or exit from the property) and the evolution of the interest rate mismatch is complex and volatile. If any factor varies substantially from forecast levels, this can have a significant impact on the cash flow of any funding structure. Given the very long potential maturity of the assets, great care must be taken when making assumptions about the long-term performance of the input factors. In particular, it should be noted that, although these criteria are for mortgage-backed securitisations, the treatment of interest rate risk management can be just as important as the analysis of the property market.

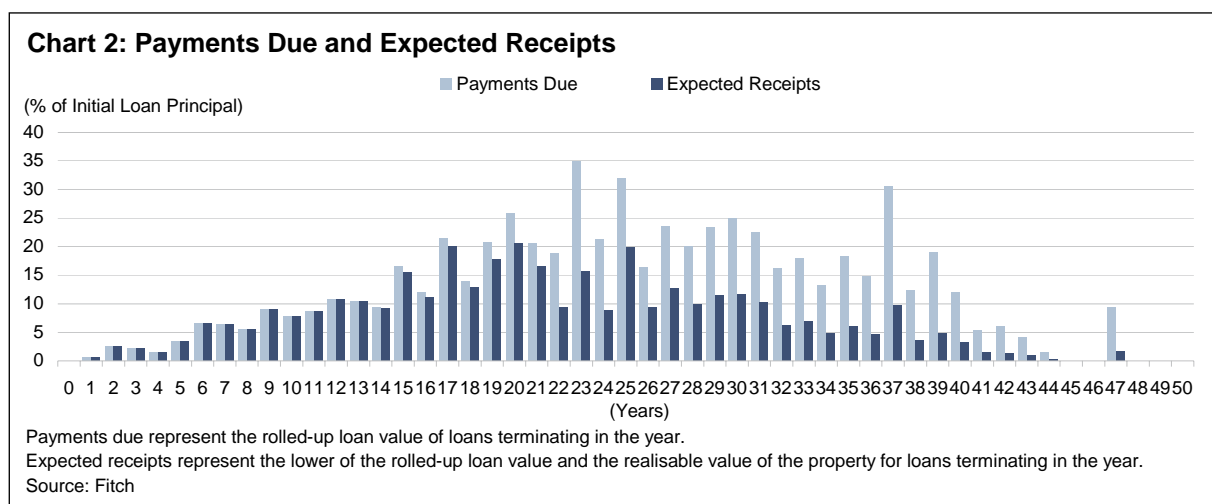
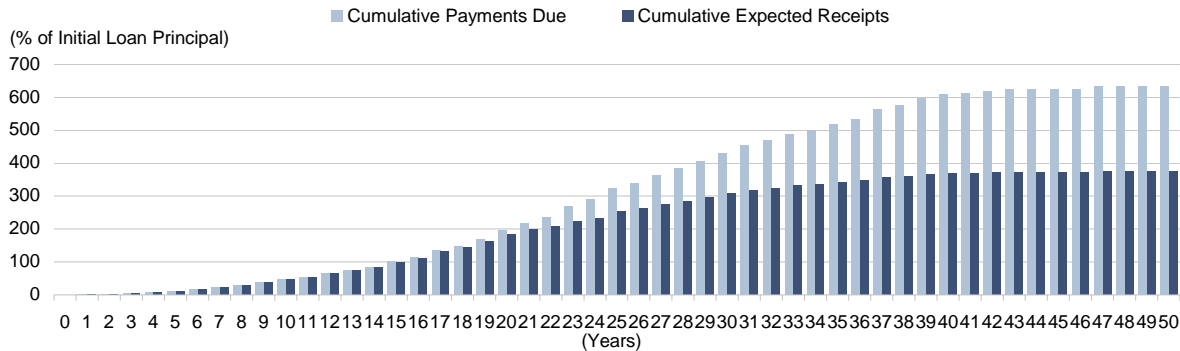


Chart 3: Cumulative Payments Due and Expected Receipts



Payments due represent the rolled-up loan value of loans terminating in the year.
 Expected receipts represent the lower of the rolled-up loan value and the realisable value of the property for loans terminating in the year.
 Source: Fitch

Variable-Rate Loans

While no such securitisations containing variable-interest rate loans have yet been launched in the UK or Australia, a number of variable-rate products do exist in both market places, which the relevant originators may look to securitise in the future. Whereas with a fixed-rate loan, the amount repayable on the loan can be calculated with certainty for a given exit date, the same is not true for a variable-rate loan. The assessment of negative equity risk needs to take this into account. Issuers will typically seek to hedge this risk out to life insurance companies and, where this is the case, Fitch will assess the arrangements in place to determine what credit it should give for them. Where no arrangements exist, the risks may be so great and dynamic in nature that a securitisation may not be feasible. Fitch will assess each transaction on a case-by-case basis.

Typical Portfolio Structure

When a portfolio of loans, structured as above, is bundled together for financing, several funding challenges emerge.

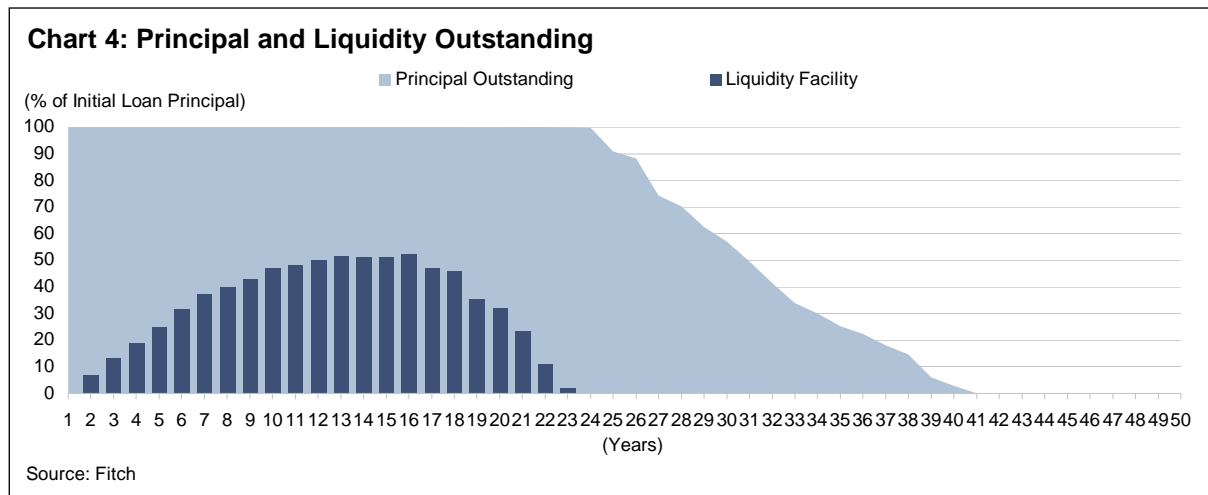
The first is to determine the expected cash flow from repayments due under the loans. The payments from each loan consist of the principal and accrued interest due at the termination date less costs. When analysing these cash flows, it is necessary to establish when the borrowers are expected to terminate their loans – i.e. on their death or entry into aged care, or voluntary repayment – as this establishes when cash will be received. For a large pool of loans, mortality and morbidity tables can be used to predict the number of borrowers who are expected to exit in each year after origination. This forecast, combined with voluntary repayment assumptions, can be used to predict an expected profile of payments from the portfolio.

The second challenge is to determine what proportion of payments due will actually be received once the loans are terminated. As a result of the “no negative equity guarantee”, this depends on the available proceeds from the sale of each property at the termination date. Therefore, property market scenarios over the portfolio life will affect the forecast for expected receipts, i.e. the cash flow in.

Thirdly, since it is unlikely that a portfolio could be financed by borrowing funds that would accrue interest, the portfolio must be able to service the interest costs of funding on a regular, periodic basis from origination. Under the expected profile of receipts, very little cash will be received for many years after origination, so a separate liquidity fund will be required to service interest payments, which could reach a range of 50%-60% of the initial loan principal. In due course, the drawn liquidity – and the interest on the drawing – will have to be repaid from the loan payments. The expected liquidity drawing can be sized by modelling the cash flow required, in addition to expected receipts, to service portfolio liabilities.

Charts 2, 3 and 4 illustrate an example of the payment patterns and expected liquidity drawing for a sample portfolio under a hypothetical stress scenario. This scenario assumes HPI appreciation of 2%, a fixed-rate interest of 8.95% on the loans and a constant funding interest rate of 7.1%. The portfolio also suffers two periods of housing recession, when property values fall by 35%.

The charts demonstrate some of the dynamics of a typical reverse mortgage portfolio. Chart 2 shows the pattern of payments due (i.e. the rolled-up value of the loan at maturity) and expected receipts (i.e. after taking into account negative equity risk) for this portfolio, expressed as a percentage of initial principal. This chart shows that the pattern of



payments follows a “hump” curve over a period of 40 years or so, with most expected payments falling due between 15 and 30 years after origination. However, the pattern of expected receipts, is influenced by the value of the underlying property. In this example, the underlying properties suffer a market value decline (“MVD”) in around year 20, and expected receipts fall below the payments due.

Chart 3 shows the accumulation of the payment patterns. In Chart 3, payments due clearly accumulate to a level more than six times the initial loan principal, most of which would be used to service funding interest costs. The pattern for expected receipts, by contrast, shows that a substantial amount of excess spread, equivalent to more than twice the initial loan principal, is not captured.

Lastly, Chart 4 illustrates an example of how much liquidity may be drawn during a transaction’s early years. It also shows how funding principal is eventually paid down from the expected receipts after servicing funding and liquidity interest.

Overall, the charts illustrate the long period of time over which loans terminate and cash is received, and the consequences that this has in terms of the amount of liquidity required and the time taken to repay principal.

■ Cash Flow Model Methodology

Fitch uses a statistical model that is central to its rating methodology. This model simulates termination dates for each borrower in a pool

(“portfolio termination simulations”), based on assumptions about mortality, morbidity and voluntary repayment.

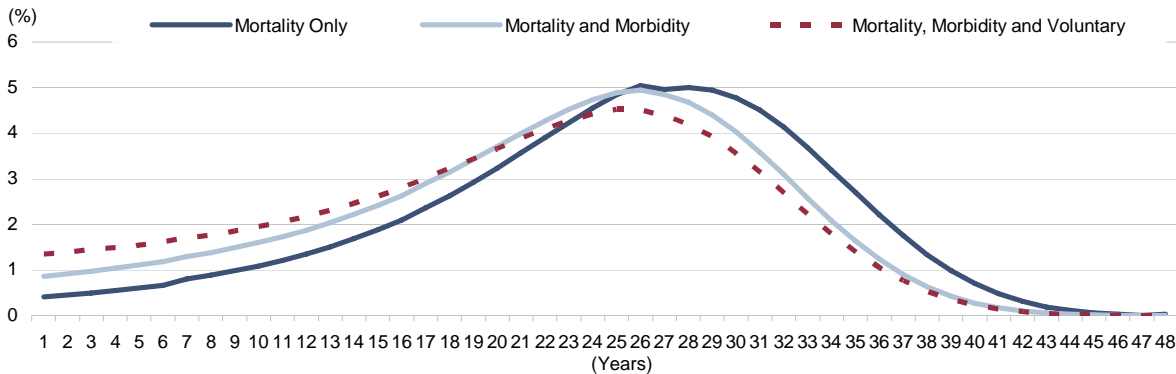
Fitch uses a multiple scenario approach to test the distribution of portfolio termination simulations. This will typically involve running each termination simulation through an asset model that takes into account the specific features of the loans being analysed and incorporating Fitch’s specific reverse mortgage assumptions for HPI movement, interest rates (if relevant), servicing costs and loan settlement costs. The result of the asset modelling will be a distribution of asset cash flows.

Although the agency has developed its own liability cash flow models for this kind of transaction, it usually requires the arrangers of a deal to provide a liability cash flow model that can test the specific credit and liquidity requirements of the distribution of asset cash flows. Different transactions have widely differing liability structures and the agency does not, therefore, use a generic cash flow model. If a transaction liability structure incorporated asset tests and triggers, the agency would require a complete model to test its asset scenarios.

The following sections detail the key assumptions the agency uses as portfolio input factors, and how these factors are stressed to establish the credit and liquidity support appropriate for each rating level.

Expected portfolio terminations are driven by assumptions about mortality, morbidity and voluntary repayment risk, which are discussed below.

Chart 5: Example of Probability of Termination in Year Since Origination for a 65-Year-Old Male



Source: CMIR 92, Fitch

Mortality Risk

Government population and death statistics are compiled to give current mortality or life expectancy forecasts. Insurance company data also provide similar information for certain population groups, such as the purchasers of life insurance or annuities.

Life expectancy tends to improve over time, as a result of higher standards of living and healthcare, and technological leaps in medical treatment. For this rating methodology, the analysis of historical mortality rates should be periodically updated to reflect recent improvements in life expectancy.

Projections of future mortality should also be adapted to reflect future improvements in life expectancy. However, this is an inexact science because breakthroughs in medical treatment – e.g. advances in heart or cancer treatment – can cause unexpected changes in mortality rates.

Furthermore, there is some evidence that reverse mortgage borrowers are likely to have longer-than-average life expectancy. This so-called “self

selection” is already a recognised feature in the annuity market whereby people purchasing annuities tend to live longer than the average life expectancy levels – see the text box below. Also, all indications are that life expectancy in developed countries will increase further over time.

An example of UK mortality is graphed in chart 5 (the data in this chart are based on the Annuities Male Lives tables from the CMIR 92 and are used for illustrative purposes only). Chart 5 shows the probability, for a 65-year-old male today, of dying in each successive year. The chart also shows the impact on the expected termination profile of morbidity and voluntary repayment, which are discussed in subsequent sections.

In this example, the life expectancy of a male who is 65 years old today is between 25 and 30 years from now. An individual expected age at death depends on the age the individual has already reached. For instance, someone who has already reached the age of 65 will – *ceteris paribus* - expect to live to an older age than someone who is 60, since there is no

UK Mortality Tables

The life expectancy for the general population in the UK has been rising over the past 30 years. According to government figures (the Office of National Statistics, Life Expectancy Data 2002) average male life expectancy increased to 75.8 years in 2000 from 73.7 years in 1991, while average female life expectancy increased to 80.4 years from 79.2 years. This increase in longevity is thought likely to continue with improvements in healthcare and standards of living.

Insurance company mortality tables give a more conservative result than government mortality data (i.e. on average they predict longer lives). This is thought to be because the tables are based upon the mortality experience of insurers, which reflects the fact that individuals purchasing an annuity tend to live longer than the average UK resident. This may be attributable to a combination of positive self-selection factors, since annuity purchasers are more affluent than average accordingly enjoy better health, and – crucially – expect to live longer than average. By contrast, an individual in poor health with limited life expectancy will not tend to purchase an annuity. Similarly, borrowers choosing equity release products may also be more affluent than average and expect longer-than-average lives.

chance of them dying between the ages of 60 and 64. Similarly, equivalently aged females have a longer life expectancy than their male counterparts.

The expected death rate for a group of borrowers is, therefore, dependent on the distribution of their ages and sex, and will ultimately be derived from the appropriate life expectancy tables, with adjustments for self selection and improvements in mortality. Additionally, since many borrowers may be couples, the actuarial analysis needs to consider the joint probability of both borrowers dying. Fitch expects issuers to obtain independent actuarial advice on expected death rates for the borrower profile that comprises the pool, and will base its analysis on the advice provided by the actuary. The agency will review the work of the actuary and will request additional actuarial analysis and information if necessary. Should the agency believe that the actuarial analysis provided is not appropriate for the borrower profile or is not sufficiently conservative, the agency may apply further mortality stresses in its analysis.

Because there is no strong link between credit-based economic factors and mortality rates, Fitch believes stressing mortality would confuse a credit analysis approach with actuarial analysis. In a stressful rating scenario, mortality is less likely to improve than to remain the same or even deteriorate. Consequently, the agency's analysis is now built on a statistical approach using conservative data and relying on multiple simulations and significance levels related to the rating scenarios. The credit risk associated with the assets will be addressed within the testing of the three economic scenarios (as defined below), which will be adjusted for the relevant rating scenarios. As a result, Fitch does not stress mortality rates, instead adopting the same conservative mortality rate whatever the rating category analysed.

Morbidity Risk

In general, less information is available for morbidity than for mortality. Firstly, definitions of morbidity may vary between countries as well as between lending and insurance companies. In practice, morbidity is the rate at which individuals reach the point of illness or infirmity at which they can no longer remain resident in their own home. However, some insurance companies have established more precise definitions.

The second issue, for the purposes of these criteria, is the complexity of predicting morbidity rates. On the one hand, evidence of historical morbidity is limited and available mostly in the form of healthcare studies or insurance data. On the other, future morbidity may fluctuate significantly as a

result of changes in life expectancy, medical treatment, social changes related to the care provided by the family in the home and public policy for the provision of long-term residential care.

Most of the insurers in the UK define morbidity as the inability to carry out at least a pre-agreed number (usually two) of activities of daily living ("ADL"). ADLs, which test the borrower's ability to care for themselves in their own home, include the person's capacity to feed, clothe and wash themselves, among others. However very few data are yet available on people's movement into long-term care as a result of their inability to perform ADLs.

Although all indications are that life expectancy will increase further over time through improvements in healthcare and the increasing affluence of society, it is not certain whether the rate of morbidity by age will increase or decrease.

As with mortality above, Fitch expects issuers to obtain independent actuarial advice on the expected morbidity rates for their pools and will base its analysis on the advice provided by the actuary. The impact of combining morbidity with a mortality curve (as illustrated in Chart 5) is to flatten the gradient of the initial slope, to lower the peak, and to shorten and flatten the tails of borrowers surviving to very old age.

In general, Fitch expects morbidity to have a beneficial effect on the rating of a transaction. In scenarios where low HPI growth is assumed, earlier termination of loans as a result of high morbidity will benefit liquidity and mitigate credit losses that might be expected later.

See *Equity Release Funding (No.5)Plc New Issue Report* dated 20 July 2005 and available at www.fitchratings.com, for more details about morbidity rates used in a recent UK transaction.

Voluntary Repayment Risk

Most reverse mortgages give the borrower an option to voluntarily repay the loan, sometimes subject to fees. Voluntary repayment benefits a securitisation transaction as it provides some liquidity early in the life of the deal.

Fitch foresees that voluntary repayment may be high soon after the origination of a portfolio as borrowers switch products to find the most competitive rate, move house or realise that the product is not suitable for their needs. As borrowers age, they are less likely to voluntarily repay owing to a decrease in mobility, less interest in changing products and, potentially, a reduction in equity in the event that HPI is lower than the rate of interest charged on the loan, which

would make it less desirable to repay. In addition, the agency expects that the family and heirs of the borrowers will intervene in a few cases to repay loans.

When the housing market has been experiencing a period of substantial HPI appreciation, the build-up of equity in properties may also prompt repayments – either to withdraw more equity or to completely redeem the debts. Some lenders grant further advances several years after origination to allow borrowers to take advantage of house price increases without having to repay. However, in a falling property market, Fitch believes prepayments may decline sharply as borrowers’ net wealth decreases.

Downward movements in interest rates may influence voluntary repayments on fixed-rate loans as borrowers seek to benefit from lower rates, while variable-rate borrowers may be more opportunistic or short term in nature, and may therefore be more likely to refinance. Additionally, borrowers who receive their loan in instalments over a long period of time are less likely to interrupt the payment pattern than those who receive a 100% payment up front.

Actual voluntary repayment data on reverse mortgage products are very limited. Existing figures show that voluntary repayments have tended to be higher in the first few years following origination and that, as borrowers age, they become less likely to move or re-mortgage.

In line with the above assumptions Fitch assumes voluntary repayment rates to be higher in the first five years post origination, and to decline thereafter. Additionally, Fitch applies stresses whereby the assumed rate of voluntary repayment is lower under a ‘AAA’ scenario than it is under a lower rating scenario. Fitch will review its voluntary repayment assumptions in light of the product being analysed.

The impact of typical expected voluntary repayments on the mortality and morbidity curve for a 65-year-old male is shown by the dotted red line on chart 5.

See *Equity Release Funding (No.5) Plc New Issue Report* dated 20 July 2005 and available at www.fitchratings.com, for more details about voluntary repayment rates used in a recent UK transaction.

Survival Curves

Once the stress case mortality, morbidity and voluntary repayment rates have been established, expected borrower survival curves can be built for each rating level by borrower age and gender. Each curve determines, for each age and gender group, the percentage of borrowers that are expected to terminate their loans in each year after loan origination. An illustration of survival curves for a 65-year-old male is given in Chart 6. These curves are used by Fitch’s statistical model to simulate portfolio termination simulations, which can be tested through asset and liability cash flow models.

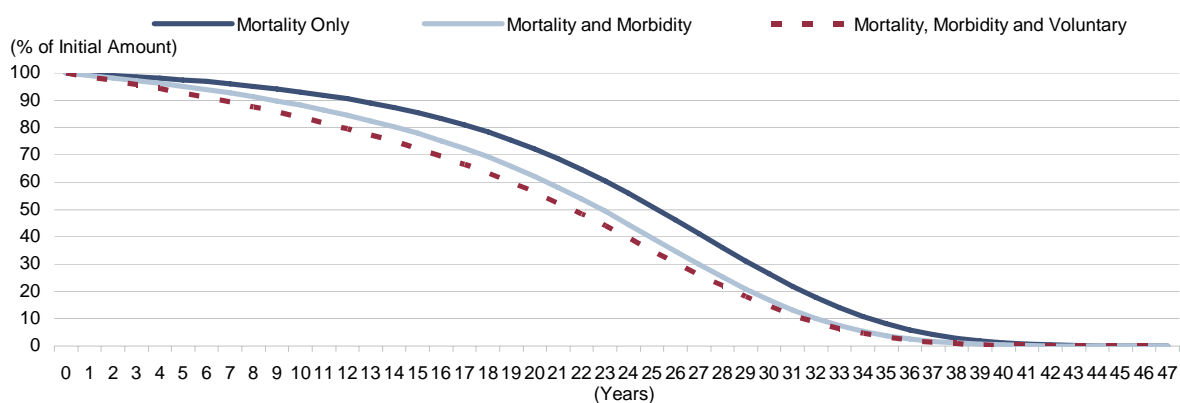
Asset Cash Flows

Loan-to-Value

As described in *Typical Loan Structure*, the initial LTV is an important means of determining whether the proceeds of the property’s sale will be sufficient to repay the loan. Depending on the survival curves and the interest rates structured into a loan, the maximum LTV for which a loan can be repaid may be sized according to borrower age and gender.

In a securitisation structure, LTVs at origination can be varied according to the level of credit enhancement, the interest rates on assets and liabilities, and the level of excess spread that the originator is aiming to extract from the transaction.

Chart 6: Example of Survival Curve Since Origination for a 65-Year-Old Male



Source: CMIR 92, Fitch

Economic Risk

Since, for products with a “no negative equity guarantee”, repayment of the loan plus accrued interest is met entirely from the proceeds of the collateral property sale, a portfolio of loans is exposed to fluctuations in property prices. The amount of debt outstanding on the mortgage at maturity depends on the rate at which interest is accumulated. If interest is accrued at a variable rate, the portfolio is also exposed to fluctuations in interest rates.

In mitigation, some appreciation in property prices would be expected over a long horizon, in line with inflation and increases in household income. A further mitigating factor is that the loans terminate over a long period of time, which provides protection against short-term falls in property prices, since most loans will not terminate and require repayment during any such period. Only an immediate and very long-term deflation in property prices would adversely affect an entire portfolio of loans.

In its criteria, Fitch’s approach to property prices and interest rates seeks to give appropriate credit for a conservative appreciation in collateral value and to stress a transaction by applying different property MVDs and interest rate scenarios. (see *Economic Scenarios* below) These scenarios are structured to reflect the analysis the agency already uses for conventional residential mortgage-backed securities (“RMBS”) ratings.

HPI

Fitch bases its HPI assumptions on an analysis of historical growth trends, stable long-term interest rates, stable economic growth forecasts and conservative inflation prospects.

In both the UK and Australia, property prices have recently undergone a period of very fast growth, mainly owing to a benign economic background, low interest rates, the increasing availability of household credit and growth in buy-to-let/investment property purchases.

Over a longer period stretching back to the 1970s, both countries have also demonstrated sustained levels of positive nominal and real HPI. This contrasts with the experience of countries such as Germany and Japan, which have experienced sustained periods of declines in real prices.

Given the long timescales involved in reverse mortgage transactions, Fitch takes a very cautious view of the potential for HPI, assuming only low levels of nominal growth in its model. Given its modest assumptions about inflation and long-term

interest rates, these nominal HPI growth factors equate to negative real HPI growth under the stress scenarios for the highest rating level.

Economic Scenarios

To stress portfolio performance sufficiently across the life of a transaction, Fitch assumes that the portfolio will suffer periods of property market recession, with a related period of interest rate stress. After each recession period, property prices are assumed to return to the trend HPI level and interest rates return to their long-term average, or base case.

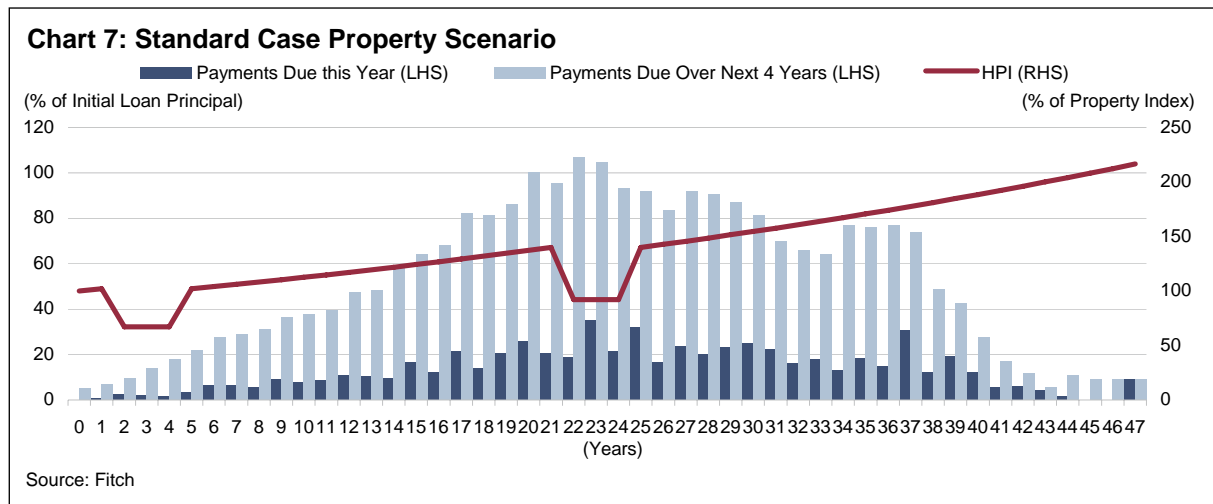
Fitch has developed three economic scenarios that a transaction structure must be able to withstand at the appropriate rating level to attain the appropriate rating. Depending on the evolution of reverse mortgage product features or specific transaction structures, the agency may develop additional scenarios in the future if it believes that the particular transaction under review would not be sufficiently stressed by these scenarios:

- a. **Standard Case** (described in more detail below): a stable long-term HPI growth trend, base-case interest rate, two periods of HPI decline combined with interest rate spikes followed by stepped decreases down to the long-term average. The first period of decline is assumed to occur six months after closing, and the second at the time of the peak in the borrower exit curve.
- b. **Volatility Scenario**: This scenario simulates six phases of 10-year boom-and-bust property cycles, associated interest rate spikes and a long-term nominal HPI growth trend.
- c. **Depression Scenario** (based on the example of the Japanese property market): similar to the standard case, except that at year 15, a deflation occurs with a duration of 15 years when 0% HPI growth is combined with low but positive interest rates.

Illustrations of the scenarios are given in Appendix 1 for the UK and Appendix 2 for Australia.

Standard Case Economic Scenario

Most securitisations seen to date have involved fixed-rate loans, which may also have been inflation indexed. In this case, the most stressful economic scenario for the asset cash flows would normally be the standard case, since the timing of the property market recessions in the model is related to the period of maximum stress. The first recession is timed to occur early in the transaction, and the second at a later point, when loan termination levels are at their peak. The timing of the second recession is thus dependent on the portfolio termination



simulation. Since this timing varies from simulation to simulation, when determining the asset cash flows, the standard case economic scenario is dynamically linked to the portfolio termination simulation in the asset model. The duration of each recession is four years, during which prices decline fully over the first six months and recover, to trend HPI level, during the last 12 months of the recession. The second recession commences when the payments due over the coming four years are at their peak for a particular termination simulation. An example of the pattern of this stress is shown in Chart 7, which also illustrates the related payments due in each year, as well as the payments due over the coming four years.

The purpose of the primary test is to establish the impact of an immediate property market recession and to maximise the losses the portfolio could suffer as a result of severe property market declines. Since few loans are expected to terminate during the first five years of the transaction, the first recession has a small impact; it is the second recession that significantly stresses the portfolio’s underlying collateral.

■ **Liability Cash Flows**

This section discusses how Fitch addresses the key risks surrounding the liability cash flows.

Interest Rate Mismatch Risk

One key challenge for the liability modelling is to evaluate the risk that can arise from a mismatch between the interest rates accruing on the loans and those payable on the portfolio funding.

As discussed in the previous section, most securitised portfolios to date have comprised fixed-interest loans. Interest rates on funding raised through securitisation will normally be variable, as will the interest rate payable on any liquidity drawing required to service obligations under the

notes. This creates the risk of a severe mismatch between interest rates over the life of the transaction.

Unless the interest rate mismatch risk is entirely eliminated through balance-guaranteed fixed-floating interest rate swaps, Fitch tests the liability cash flow under the varying interest rate scenarios discussed in the previous section, which create short-term spikes in the interest rates due on the funding. The purpose of these scenarios is to ensure that the transaction structure has the liquidity needed to meet obligations on note payment dates and captures sufficient interest accrued on the loans to repay liquidity and ultimately repay the notes.

In the structures the agency has seen to date, the three economic scenarios discussed in the previous section, and illustrated in Appendix 1 for the UK and Appendix 2 for Australia, have sufficiently stressed the interest rate hedging arrangements. The agency will review each structure on a case-by-case basis and, where it concludes that the interest rate hedging arrangements are not sufficiently stressed by these economic scenarios, it will introduce additional economic scenarios.

Payment Waterfalls

Transaction liability structures may vary widely to offer a range of principal repayment options in addition to the varying level of liquidity support for note interest payment.

The simplest structure is a sequential pass-through payment waterfall, which repays principal after servicing note interest and liquidity. However, other options include the diversion of principal from such a waterfall to prioritise the repayment of specific tranches or to accumulate principal for a bullet repayment. Junior interests may also be subordinated following a breach of certain triggers. Asset portfolio

performance tests may be required to permit such changes.

Liquidity Requirements

Most reverse mortgage securitisations will require substantial levels of liquidity to support interest payments over the first few years of a transaction's life: typically, notes funded under such a structure will require monthly or quarterly interest payments. Since the transaction only receives interest from borrowers on termination of the loan, the timing of interest received does not match interest paid and most structures will be cash flow negative for the first few years of the deal's life. As shown in Chart 4, liquidity draws, under a moderately stressful rating scenario, can come to represent a significant proportion of principal outstanding and may remain drawn for a number of years.

To maintain interest payments and support principal payments, either a specific credit facility or a liquidity facility may be drawn. If repayment of either facility then ranks below note repayment, the facility will be providing credit enhancement to the transaction rather than pure liquidity. If, under a default event, or other structure trigger, the priority of payment reverts to a sequential structure without the support of the credit facility, care should be taken to avoid giving credit to a facility that may be unavailable in a stress scenario.

Further to the above, in a transaction with one or more subordinated funding tranches, separate liquidity facilities may be established to support each tranche. In this case, facilities to support mezzanine and subordinate tranches may rank junior in the payment waterfall to senior notes. Alternatively, liquidity support may be divided to recreate the interest payment accruing on the loan and provide top-up liquidity to meet note interest payments where any shortfall arises. However, under all facility structures, the senior note liquidity facility must still be large enough to support the senior notes through the most stressful rating scenarios.

Liquidity providers should comply with Fitch's relevant criteria, details of which are provided in the report "*Liquidity Support in Structured Finance Transactions*" dated 13 July 2004 and available at www.fitchratings.com.

Excess Spread

As shown in Chart 1, on the termination of a loan, the transaction will capture a certain amount of excess spread (unless either the principal plus accrued interest on the loan has exceeded the property value, or the accrued funding interest has exceeded the accrued loan interest). In most

structures, this excess spread should be available to repay liquidity or pay interest on the notes. In such cases, all interest collections and principal repayments will be pooled and passed through the payment waterfall.

However, some structures may extract excess spread. In these cases, a certain portion of interest collections may be paid to a beneficiary before servicing the liquidity facilities or notes. Accordingly, liquidity will be drawn for a longer period of time and must be sized to replace the excess spread withdrawn from the transaction.

Using Principal to Pay Interest

In structures that pool interest and principal collections and pass the available proceeds through one payment waterfall, principal collections will be used to service note interest payments before repaying principal.

Further Structuring Issues

Reverse mortgage securitisations potentially pose a wide variety of structuring challenges but also offer many options. The liability side of the transaction determines where the various house price, interest rate and life risks are borne. A key challenge to arrangers is to manage the timing of payments to ensure some flow of payments to the originator and various funding parties without compromising the credit quality of the most senior funding. Similarly, given the long, variable maturity of the assets, elimination of the interest rate mismatch risk is difficult, and structuring solutions may spread the risk between hedge providers, noteholders and even borrowers.

Some of the structuring issues are discussed below. Fitch's general approach to all structuring questions is that a cash flow model of the structure should be able to demonstrate timely/ultimate payment of interest and ultimate repayment of principal under the stress inputs detailed earlier in this report.

Undercollateralisation

An alternative option for passing some return on the portfolio back to the originator prior to note maturity is to undercollateralise the structure by selling the loans to the structure at a premium to face value. This recognises that the amount due under the loan will significantly exceed the face value of the loan, the interest on the loan being capitalised over time. At closing, depending on the loan LTV and seasoning, the structure is therefore adequately collateralised even though the total amount of notes outstanding exceeds the current total amount due under the loans

Interest Rate Hedging Strategies

As noted in *Interest Rate Mismatch Risk*, a balance-guaranteed fixed-floating interest rate swap can remove all interest rate exposure on note interest and liquidity facility interest. The maturity of the swap is the entire legal final maturity of the transaction.

Unless a balance-guaranteed swap is in place to hedge the interest rate mismatch between the loans and, the funding notes and liquidity facility, the interest rate risk may be only partially mitigated.

For example, if a fixed-floating interest rate swap is provided, with a fixed amortisation profile for a tranche of notes, there is a strong risk that the transaction will suffer a cost if principal is not repaid at the expected rate. If there is an unexpected increase in the level of loan terminations, the transaction may have to pay a significant level of swap break fees to the swap provider. (Similarly, if the swap amortisation curve is below the amortisation expected under the rating agency scenarios, the transaction will be exposed to an unhedged portion of interest rate risk). Accordingly, stress scenarios and the resulting transaction credit enhancement and liquidity support would need to take account of these costs.

Other devices such as interest rate caps may be used, which will provide a payment if rates rise above a certain level. Alternatively, some exposure may be passed to borrowers if they will accept a certain amount of flexibility in the interest rate charged to the loan – for example a floating rate subject to caps and floors.

Swap counterparties must comply with Fitch's relevant criteria, details of which are provided in "*Counterparty Risk in Structured Finance Transactions: Swap Criteria*" dated 13 September 2004 and available at www.fitchratings.com.

Fixed Principal Repayment

Principal and excess spread may be accumulated to pay a note tranche in a bullet or on a fixed repayment schedule. The principal will be reinvested in a Guaranteed Investment Contract ("GIC") account, and the cash flow model should size any negative-carry costs.

Any accumulation of principal for subordinate note tranches should rank junior to interest and principal payments for the senior notes; however, this could be subject to portfolio performance tests.

■ Operational Risk

Underwriting Issues

As part of its analysis of a transaction, Fitch will assess the originator's ability to underwrite and service reverse mortgages. In contrast to a conventional mortgage, reverse mortgages are not typically concerned with the credit quality of the borrower, since they do not rely on the borrower making an ongoing payment for repayment of the loan. The focus is primarily on the property itself since both loan principal and interest will be met from the ultimate realisation of the property, unlike for a conventional mortgage where the property provides more of a "safeguard" if the borrower fails to perform.

The underwriting focus for a reverse mortgage lender should, therefore, be to ensure that a full property valuation has been undertaken. Legal procedures ensuring that the lender's charge is registered against the property need to be solid. Given the vulnerable nature of the borrower sub-set, satisfactory procedures should be in place to ensure that the lender complies with regulatory requirements and to protect it from exposure to legal claims from borrowers.

Procedures should include ensuring that the borrower has taken appropriate independent advice on the transaction and that the lender can demonstrate this to be the case. In addition, Fitch will assess the procedures for ensuring that any dependents have been consulted as a part of the loan process and the extent to which parties currently living with the borrower have been consulted during the lending process.

Servicing, Loan Settlement and Enforcement Assumptions

This section also sets out the various servicing, loan settlement and enforcement assumptions Fitch factors into its rating approach.

There are considerable risks relating to the servicing of loans and the management of the collateral property. Also the process of obtaining and liquidating the property at the loan termination date may involve delays and costs.

During the life of the loan, there is a risk that the property may suffer dilapidation, particularly as the occupiers may be elderly and infirm. Also, in times of declining property values, should it become apparent to the borrower that the loan amount due exceeds the value of the collateral, there would be no financial incentive to maintain the property. To mitigate this risk, Fitch expects loan agreements to

place a requirement on the borrower to maintain the property. Further external property inspections and ongoing monitoring of the property's condition are among the procedures the agency would expect to see during the life of a loan. Fitch applies a reduction to the expected property value upon sale to account for standard sale and maintenance costs; if the agency has concerns about the quality and future maintenance of the collateral, an additional haircut will be applied to the property value.

At the termination of the loan (except in the case of voluntary repayment), either the lender will obtain vacant possession and be able to proceed with a sale, or the borrower's estate will control the sales process. If the borrower's estate controls the sales process, the lender should have procedures in place for monitoring the sales process and should be able to step in after a suitable amount of time has passed. Since there may be delays related to the processing of the borrower's estate, or issues where the borrower is moving into care, Fitch will assume a delay between loan termination and the receipt of the funds. It will also incorporate a delay for the preparation of the property for sale and the standard sale process. During this period, no further interest is deemed to accrue to the loan and a transaction structure must therefore bear this "negative carry cost" until funding for the loan has been repaid.

In addition to the delays to loan settlement, the agency also expects a transaction to bear the costs of obtaining and selling the property, including legal fees and real estate agent costs.

Regulatory Environment

The reverse mortgage industry is particularly vulnerable to reputation and mis-selling risks, as illustrated by the problems with some of the Home Income plans in the UK in the 1980s, referred to on page 3.

The main issues for transactions are:

1. to be adequately protected from future claims of mis-selling, unfair contract terms, or predatory lending to vulnerable borrowers, for example from the borrower's heirs;
2. to avoid non-compliance with existing regulatory legislation; and
3. to ensure the legal enforceability of the mortgage and any other arrangements entered into with the borrower.

Voluntary codes of conduct and regulation on minimum standards of business conduct are in place in certain jurisdictions. Brief descriptions of the regulatory environment for both the UK and

Australia are given overleaf. Compliance with codes, where they exist, should offer some comfort.

When analysing a pool of reverse mortgages, Fitch will look closely at the regulatory and legal obligations of the lender. The risk of product mis-selling or the challenge to the enforceability of agreements will clearly affect the portfolio cash flow and the security that investors are relying upon for repayment of capital and interest. A transaction must demonstrate that such risks are avoided or mitigated.

UK Regulatory Environment

SHIP was formed in 1991, specifically for the protection of those taking out income plan reverse mortgage products. However, the organisation has broadened its membership to include the current major equity release players. SHIP promotes the use of safe equity release schemes and publishes a set of criteria that a product must adhere to in order to be SHIP approved. These criteria, which apply to mortgage-backed and reversion products, include: 1) the borrower has a right to live in the property to the later of their entry into long-term care or their death; 2) the products are portable without penalty; 3) the borrower will receive either a cash sum or regular income payment.

SHIP members must also adhere to a published code of practice which ensures that: 1) lenders offer fair, simple and complete presentation of their plans; 2) the client's legal work will always be performed by the solicitor of his or her choice; 3) the SHIP certificate will clearly state the main cost to the householder's assets and estate; and 4) all SHIP plans carry a "no negative equity" guarantee. However, membership of SHIP is not mandatory and, moreover, the organisation has no direct powers over its members.

Reverse mortgages (over GBP25,000) are also covered by The Mortgage Code introduced by the Council of Mortgage Lenders, which sets out minimum standards of advice and service for all lenders that subscribe to it. All the main equity release providers are also subscribers to The Mortgage Code. In common with the SHIP code, this is a voluntary code with no powers to require membership and no overt powers to control its members. Although SHIP and The Mortgage Code are extremely positive elements in a robust lending process, they are ultimately self-regulatory, voluntary codes.

In addition to the self-regulation, all advances of under GBP25,000 are subject to the Consumer Credit Act 1974 ("CCA"). This polices the rights of borrowers and ensures that they are provided with minimum levels of information. While it does

achieve customer protection, the legislation is now over 25 years old and was not drafted with equity release products in mind. It is extremely prescriptive about the layout and presentation of a transaction in the finance documents and can create uncertainty for borrowers and lenders alike. Indeed some lenders do not issue equity release loans below this GBP25,000 level.

Since 31 October 2004, with a view to strengthening the mortgage regulatory framework, the FSA has taken statutory responsibility for the regulation of the conduct of business in the mortgage industry, including the regulation of reverse mortgages although not of reversion products. This will provide a minimum set of rules for the advertisement and selling of reverse mortgages.

After conducting a recent industry-wide sample study of advisers that work with equity release mortgages, the FSA found that many are failing to gather sufficient information about their customers before offering them advice on equity release products. In addition, some consumers are being advised to invest a portion of the equity released in products that are not suited to their needs and may unnecessarily expose them to risk. It is therefore also very important for lenders to establish robust policies for monitoring the panel of advisors with which they work.

Australian Regulatory Environment

Following the example of SHIP in the UK, SEQUAL was launched in February 2005. A voluntary organisation, SEQUAL was launched by four of the then eight reverse mortgage lenders. Five lenders are now members and are required to follow two key product standards:

1. the borrower must obtain independent legal advice, separate to the sales process; and
2. the borrower must receive a “no negative equity” guarantee.

In addition to the self-regulation provided by SEQUAL, all consumer credit in Australia is subject to the terms and conditions of the Uniform Consumer Credit Code (“UCCC”).

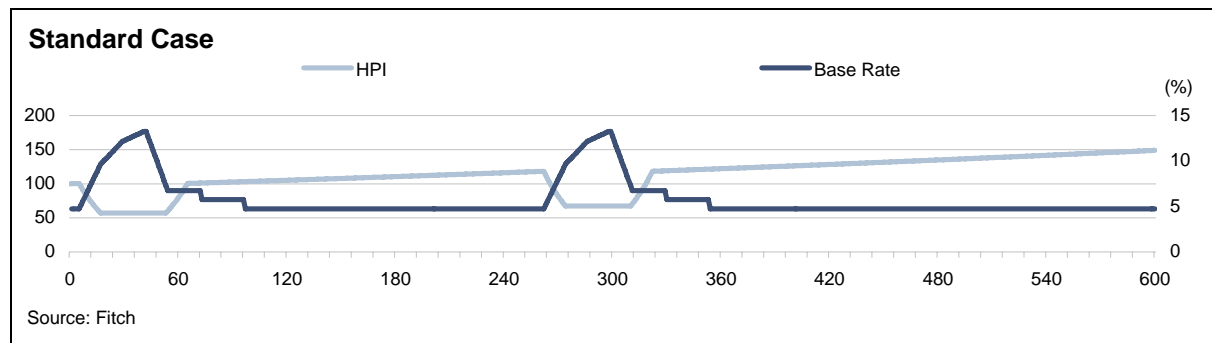
The UCCC, enacted in 1996 in substantially identical form in each of the country’s states and territories, imposes severe penalties for non-compliance. This required all lenders to overhaul their entire origination and servicing procedures, into which compliance is now firmly embedded. While the UCCC only governs loans for consumer purposes, such as personal loans and loans for the purchase of owner-occupied properties, other products, including investment property loans, have been caught up in this general operational upgrade.

The UCCC requires credit providers to make a full disclosure to prospective borrowers of the interest rate, fees and any prepayment penalties. It also imposes a responsibility on the lender to ascertain that the prospective borrower both understands the contract and has the ability to repay the loan. While the ability to pay may not be an issue for a reverse mortgage borrower since the borrower does not have to service the loan, understanding the contract carries even more importance than with a regular mortgage owing to the complexity of the product. Failure to comply with the UCCC can result in the cancellation of a debt.

■ Appendix 1: Illustrative UK 'AAA' Economic Scenarios

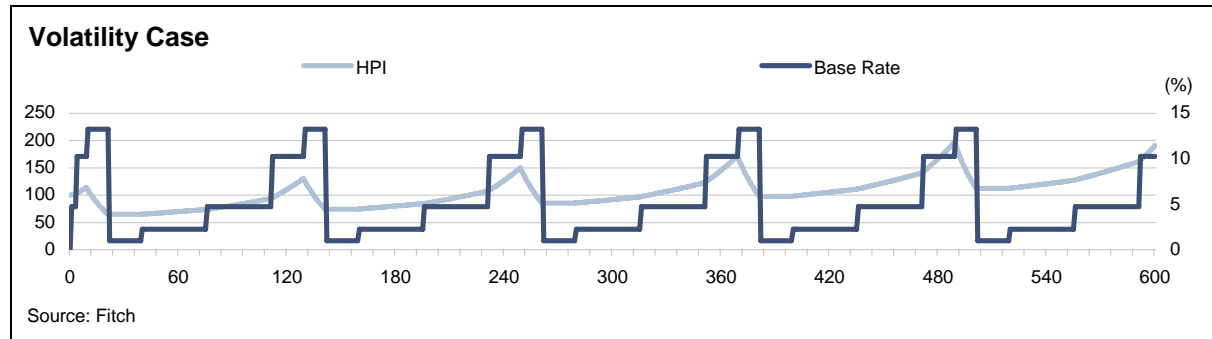
Standard Case

This scenario simulates a stable long-term HPI growth trend and a base-case interest rate, also including two phases of HPI decline combined with interest rate spikes (i.e. LIBOR increases used in the standard RMBS cash flow model approach, following by stepped decreases down to the long-term average). The first phase of decline happens quite early in the life in the transaction (after six months), while the second is combined with the peak of the loan terminations predicted by Fitch's statistical model. Each recession lasts for four years. The graph below illustrates a 'AAA' standard case for a specific pool, where the second recession starts after 260 months. The interest rate peak timing matches that of the recession one, combining a higher cost of funding with a lower property value.



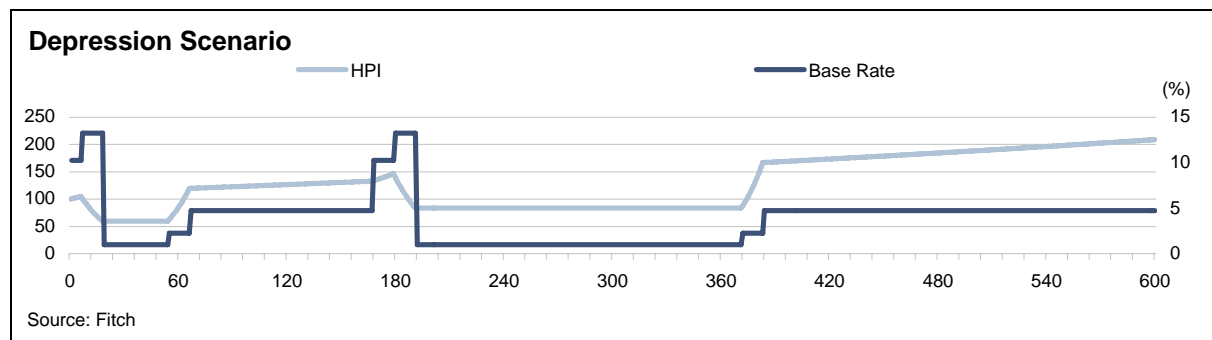
Volatility Scenario

This scenario simulates 10-year boom and bust property cycles, with associated interest rate spikes, incorporated within long-term nominal HPI growth trend. The graph below illustrates a 'AAA' volatility scenario for this transaction.



Depression Scenario

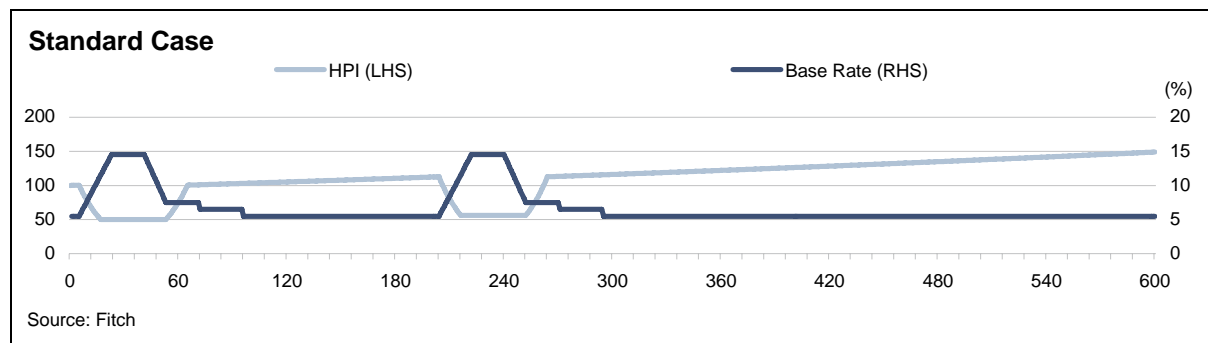
This scenario is similar to the standard case, except that at year 15, a deflation occurs for 15 years, during which 0% HPI growth is combined with low but positive interest rates. The graph below illustrates a 'AAA' Depression Scenario for this transaction.



■ Appendix 2: Illustrative Australian 'AAA' Economic Scenarios

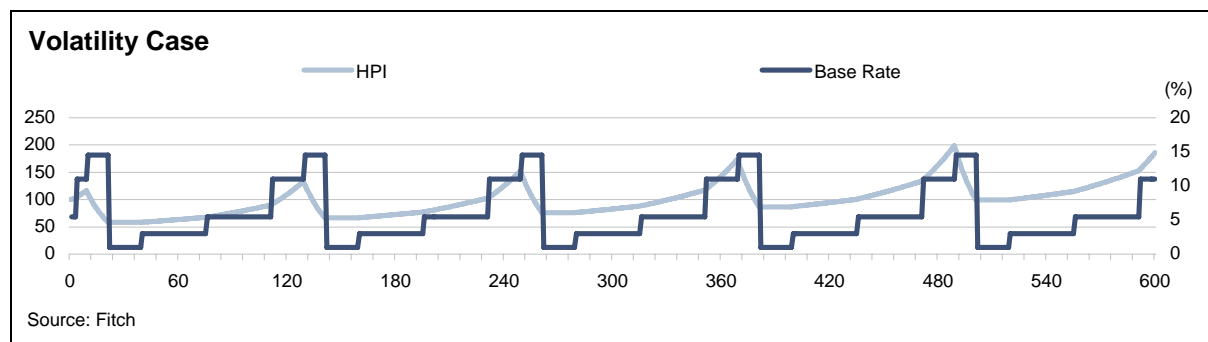
Standard Case

This scenario simulates a stable long-term HPI growth trend and a base-case interest rate, also including two phases of HPI decline combined with interest rate spikes. The first phase of decline happens quite early in the life in the transaction (after six months), while the second is combined with the peak of the loan terminations predicted by Fitch's statistical model. Each recession lasts for four years. The graph below illustrates a 'AAA' standard case for a specific pool, where the second recession starts after 200 months. The timing of the interest rate peak matches that of the recession, combining a higher cost of funding with a lower property value.



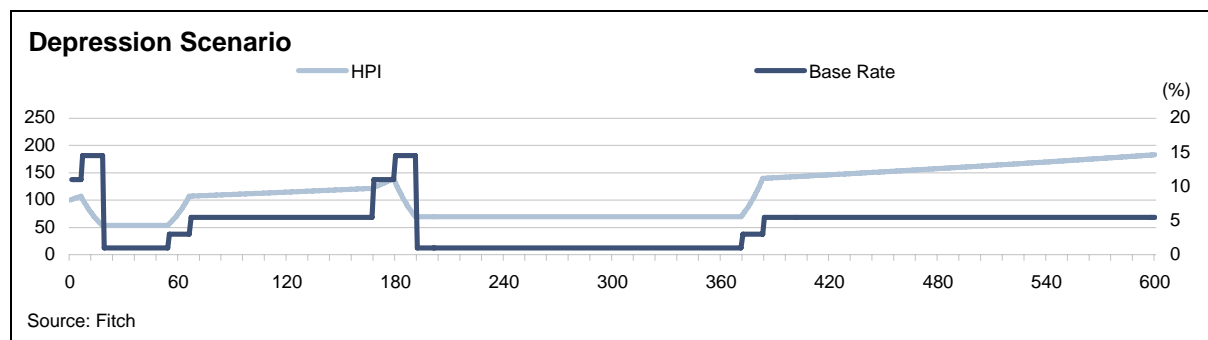
Volatility Scenario

This scenario simulates 10-year boom and bust property cycles, with associated interest rate spikes, incorporated within long-term nominal HPI growth trend. The graph below illustrates a 'AAA' volatility scenario for this transaction.



Depression Scenario

This scenario is similar to the standard case, except that at year 15, a deflation occurs for 15 years, during which 0% HPI growth is combined with low but positive interest rates. The graph below illustrates a 'AAA' Depression Scenario for this transaction.



Copyright © 2005 by Fitch, Inc., Fitch Ratings Ltd. and its subsidiaries. One State Street Plaza, NY, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. All of the information contained herein is based on information obtained from issuers, other obligors, underwriters, and other sources which Fitch believes to be reliable. Fitch does not audit or verify the truth or accuracy of any such information. As a result, the information in this report is provided "as is" without any representation or warranty of any kind. A Fitch rating is an opinion as to the creditworthiness of a security. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed, suspended, or withdrawn at anytime for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of Great Britain, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.