

# Paragon Mortgages (No. 7) PLC

## Paragon Mortgages Limited Residential Mortgage Backed Securitisation UK

*PLEASE NOTE: This pre-sale report addresses the structure and characteristics of the proposed transaction based on the information provided to Moody's as of April 2004. Investors should be aware that certain issues concerning this transaction have yet to be finalised. Upon conclusive review of all documents and legal information as well as any subsequent changes in information, Moody's will endeavour to assign definitive ratings to this transaction. The **definitive** ratings may differ from the **provisional** ratings set forth in this report. Moody's will disseminate the assignment of definitive ratings through its Client Service Desk.*

### CLOSING DATE:

[• May 2004]

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### RATINGS

| Class | Rating | Amount           | % of Total | Legal Final Maturity | Maturity Expected |
|-------|--------|------------------|------------|----------------------|-------------------|
| A1a   | (P)Aaa | USD[•]           | [•]        | 15/05/34             | 15/05/10          |
| A1b   | (P)Aaa | GBP[•]           | [•]        | 15/05/34             | 15/05/10          |
| A1c   | (P)Aaa | €[•]             | [•]        | 15/05/34             | 15/05/10          |
| B1a   | (P)A2  | USD[•]           | [•]        | 15/05/43             | 15/05/10          |
| B1b   | (P)A2  | GBP[•]           | [•]        | 15/05/43             | 15/05/10          |
| B1c   | (P)A2  | €[•]             | [•]        | 15/05/43             | 15/05/10          |
| Total |        | GBP[800,000,000] | 100        |                      |                   |

The ratings address the expected loss posed to investors by the legal final maturity. The structure allows for timely payment of interest and ultimate payment of principal at par on or before the rated final legal maturity date. Moody's ratings address only the credit risks associated with the transaction. Other non-credit risks have not been addressed, but may have a significant effect on yield to investors.

### OPINION

#### Strengths of the Transaction

- The strong performance of prior loans secured on let property previously originated by PML. The arrears and losses observed in recent Paragon securitisations have been much lower than in most prime mortgage backed transactions from major mortgage originators;
- The amount of available Excess Spread. Paragon have pledged to maintain the gross margin in the deal at a minimum level of 1.60% until the Note step up date, and 2.00% thereafter, or to inject additional funds into the transaction; and
- A portion of the collateral is well seasoned (WA seasoning of more than 5 years) and has exhibited a very good performance since origination.

#### Weaknesses and Mitigants

- The Issuer is a non-orphan SPV, and may have additional risks as outlined below under "Transaction Structure";
- This transaction does not benefit from a separate liquidity facility, but Moody's believes that the transaction has adequate liquidity support as outlined below under "Liquidity";
- The interest rate swap does not conform to Moody's published criteria and may require the Issuer to pay certain break costs to the swap provider in the event that mortgages default or prepay. In mitigation, payments of these amounts are deeply subordinated where the swap provider is the defaulting party;
- This transaction does not benefit from a separate redraw facility to compensate for the risk of excess redraws under the flexible mortgage loans. In mitigation, the portion of flexible loans in the pool is minimal (about 5%) and the Issuer may have the ability to use the subordinated loan in order to meet its redraw obligations.



## STRUCTURE SUMMARY

|                              |  |
|------------------------------|--|
| Issuer:                      | Paragon Mortgages (No. 7) PLC  |
| Structure Type:              | Notes backed by a pool of mortgages which have been sold to a special purpose vehicle ("SPV") incorporated in England.   |
| Interest Payment Dates:      | February, May, August and November each year. First IPD is 15th November 2004 and thereafter the 15 <sup>th</sup> following each quarter end or the next succeeding business day: Principal Payment Date is each IPD, in line with net principal redemption on the pool. |
| Originator:                  | Paragon Mortgages Limited and Mortgage Trust Services PLC  |
| Liquidity Facility Provider: | N/A  |
| Currency Swap Provider:      | The Royal Bank of Scotland plc ("RBS")   |
| Interest Rate Swap Provider: | JP Morgan Chase  |
| Servicer:                    | Paragon Finance PLC and Mortgage Trust Services PLC  |
| Back up Servicer:            | GHL Mortgage Services Limited  |
| Credit Support:              | Reserve fund, Excess spread and Note subordination   |
| Trustee:                     | Citicorp Trustee Company Limited   |
| Lead Managers:               | RBS and Barclays Capital   |

## COLLATERAL SUMMARY\*

|                       |   |
|-----------------------|---|
| Receivables:          | First ranking mortgage loans made to individuals and secured on residential properties located in England, Wales, Scotland and Northern Ireland   |
| Current Balance:*     | GBP 557,171,810   |
| Loan Count:           | 7261  |
| Current LTV:          | Weighted average: 75.85%, >= 90%: 0.11%   |
| Geographic Diversity: | S.East including London 43.42%, S.West 7.53%, W.Midlands 5.26%, N.West 12.41%, E.Midlands 5.12%, Yorks & Humber 12.78%, Scotland 1.70% E.Anglia 2.95%, North 5.31%, Wales 3.48%, Northern Ireland 0.06% |
| Seasoning:            | Weighted Average: 22.62 months  |
| Delinquency Status:   | >=1 to <=3 months: 0.32%, >3 months: 0.33%  |
| Loan Purpose:         | Remortgage 35.37%, Purchase: 55.88%, Equity Release 8.76%   |
| Repayment Method:     | Principal and Interest 20.2%, Interest Only 79.8%   |
| Interest Rate Type:   | LIBOR Linked 57.07%, Fixed 10.97 %, Variable 31.96%   |

\* Based on Poolcut as of 31 March 2004.

## NOTES

| Class | Rating         | Note Coupon Rate  | Initial Margin | Step Up Margin** |
|-------|----------------|-------------------|----------------|------------------|
| A1a   | (P) <b>Aaa</b> | 3-month \$ LIBOR  | [•]%           | [•]%             |
| A1b   | (P) <b>Aaa</b> | 3-month GBP LIBOR | [•]%           | [•]%             |
| A1c   | (P) <b>Aaa</b> | 3-month EURIBOR   | [•]%           | [•]%             |
| B1a   | (P) <b>A2</b>  | 3-month \$ LIBOR  | [•]%           | [•]%             |
| B1b   | (P) <b>A2</b>  | 3-month GBP LIBOR | [•]%           | [•]%             |
| B1c   | (P) <b>A2</b>  | 3-month EURIBOR   | [•]%           | [•]%             |

\*\* Step up of the Note margins will occur on the Interest Payment Date falling in [May] 2010

*Moody's assigns provisional ratings to Paragon Mortgages (No. 7) PLC.*

## OVERVIEW

Moody's has assigned a provisional long term credit ratings of (P)**Aaa** to the Class A2 Notes and (P)**A2** to the Class B Notes of the Issuer.

Moody's issues provisional ratings in advance of the final sale of securities, and these ratings only represent Moody's preliminary opinion. Upon a conclusive review of the transaction and associated documentation, Moody's will endeavour to assign definitive rating to the Notes. A final rating may differ from a provisional rating.

The rating of the Class A Notes is based upon an analysis of the characteristics of the mortgage pool backing the Notes, the protection the Notes receive from credit enhancement against defaults and arrears in the mortgage pool, and the legal and structural integrity of the issue.

The ratings of the Class B Notes are based on the above factors, and on an assessment of the extent of their subordinate position within the structure.

The provisional ratings of the Notes address the expected loss posed to investors by the legal final maturity. The structure allows for timely payment of interest and ultimate repayment of principal at par on or before the rated final legal maturity date.

## STRUCTURAL AND LEGAL ASPECTS

### Transaction Structure

The Issuer is a special purpose vehicle incorporated in England and owned by The Paragon Group of Companies PLC. Typically, UK MBS transactions rated by Moody's have featured an orphan SPV as issuer. The fact that the Issuer is not an orphan company introduces additional risks not typically found in UK MBS transactions:

- as a matter of UK tax law, it is possible that a subsidiary can be fixed with liabilities for tax of another member of its group. In this case, Moody's expects that an extensive range of undertakings will provide assurance that the chance of such secondary liabilities arising is remote.
- a company organised in the UK can be wound up by a shareholders' resolution. Whilst, in the circumstances, there might be little advantage to be gained by a liquidator of the Issuer's parent company by doing this, Moody's stress scenarios envisage such an attempt being made. Moody's is, however, satisfied that the combination of the non-petition covenants given by the parent companies in the Paragon group, and the share ownership structure of the Issuer, effectively eliminate this risk. The legal opinions confirm this point.

### VAT Grouping

In common with other Paragon transactions rated by Moody's (see the previous "Paragon Mortgages" and "Finance For People" deals), but unlike the vast majority of UK MBS transactions, the Issuer is grouped with the rest of the Paragon Group for VAT purposes. The VAT grouping means that services or goods provided between members of the VAT group are not subject to VAT (which would otherwise be payable on servicing fees); but, as a consequence, each member of the VAT group is jointly and severally liable for VAT liabilities of all other members of that group. A long standing arrangement is in place to mitigate this risk:

*The Issuer is a non-orphan SPV, and may have additional risks.*

*The Issuer is grouped with the rest of Paragon Group for VAT purposes, all of which are jointly and severally liable for VAT liabilities of all of the others in that group.*

- 1) A Trust Account, held in the name of Citicorp Trustee Company Limited as trustee with National Westminster Bank Plc (**Aa1, Prime-1**), can be used by any member of the VAT group to meet group VAT liabilities should PFPLC (which, as representative member, is primarily liable for group VAT) fail to do so. PFPLC must maintain a minimum balance in the Trust Account equal to the greater of (1) GBP120,000, (2) 1.2 times the actual VAT liability for the Paragon VAT Group in the last two accounting periods, or (3) 1.2 times the sum of the estimated VAT liabilities of the Paragon VAT Group for the current and next succeeding accounting periods.
- 2) If PFPLC fails to pay VAT due by it, or fails to maintain the minimum balance in the Trust Account), the Issuer will automatically be de-grouped; on a degrouping, no new VAT liabilities will arise but any that exist remain. The VAT authority cannot prevent a company from de-grouping, but it must be given 90 days' prior notice.

## **Credit Enhancement**

### ***Excess Spread and the MMR***

#### ***Excess Spread.***

The first layer of protection for investors in the Notes is the Excess Spread in the transaction which is the difference between:

- 1) the income receivable by the Issuer under the mortgage loans and its other investments and swap arrangements; and
- 2) the amounts of interest due by the Issuer on account of its various ongoing costs and expenses and under the Notes and swap arrangements.

Excess Spread is to be applied by the Issuer first in reduction of any principal deficiencies that have arisen following a principal loss on any of the loans, and then in increasing the First Loss Fund to the required amount. (Such losses are recorded on the Principal Deficiency Ledger, which is a ledger maintained for this specific purpose.)

The transaction benefits from a Minimum Mortgage Rate ("MMR") which provides some guarantee as to the amount of Excess Spread that will be available; under the MMR, the Administrator must set the rate on the variable rate mortgages in the portfolio so as to ensure that the weighted average interest of the portfolio taken as a whole plus any other income received by the Issuer is at least 1.60% in excess of the Libor rate applicable to the Notes, although there is an option for the Issuer to borrow further amounts under the subordinated loan made by PSRL so as to cover any shortfall that exists.

However, the credit enhancement value of the MMR, and the Excess Spread that it generates, depends on a number of factors such as relative prepayment speeds of the various loan types in the portfolio; should the variable rate loans (including the Libor-linked and Base Rate Tracker loans) prepay more quickly, then the portfolio would be dependent on an increasingly small number of variable loans generating sufficient revenue to cover any shortfall arising with respect to other loan-types (such as fixed and capped rate loans) in the portfolio. Moody's has analysed the likelihood of adverse prepayment speeds and is satisfied that the residual risk is consistent with the rating levels, especially given that the majority of fixed rate mortgage loans revert to a variable rate after a fixed initial period of up to 3 years.

The credit enhancement value of Excess Spread also depends on the timing of principal losses. Subject to the Arrear Trigger described below, excess Spread is available on a "use it or lose it" basis and so, if not used to reduce the Principal Deficiency Ledger or to top up the First Loss Fund, it is paid back to PSRL via the Subordinated Loan and other profit extraction mechanisms; which might occur before losses on the portfolio have shown through. The value of the Excess Spread was assessed by Moody's under a variety of adverse conditions.

### **First Loss Fund**

#### **Reserve Fund.**

The second layer of protection for investors in the Notes is the First Loss Fund (equal to [2.2]% of the GBP equivalent of the principal balance of the notes at closing (see below)). This fund is available to pay interest and senior cost obligations of the Issuer and to make up any principal losses on the PDL should there be insufficient spread on the assets to meet these obligations.

#### **Arrears Trigger.**

If at any time, more than 3% of the mortgages are 2 months or more in arrears, the Required Amount of the First Loss Fund will increase to [2.9]% through the capture of excess spread, and must be maintained at that level thereafter.

### **Subordination of the Notes**

#### **Note Subordination.**

The third layer of protection for investors is the subordination of the principal balance of the B Notes to the A Notes. The Class A Notes redeem sequentially but begin to redeem pro rata with the Class B Notes after 5 years if the following conditions are satisfied:

- 1) the ratio of Class B Notes to Class B Notes and Class A Notes is at least twice the ratio calculated as at closing;
- 2) there is no debit balance on the PDL;
- 3) less than 7.5% of the pool by principal balance is 3 or more months in arrears; and
- 4) Pro rata redemption would not cause the principal balance of the Class B Notes to fall below 4.76% of the original balance of the Notes issued.

### **Interest/Interest Subordination**

Further protection is provided via the subordination of interest due under the Notes; on each interest payment date, all income (after paying certain senior costs and expenses) is allocated first to pay Class A interest and then Class B interest.

### **Interest/Principal Subordination**

In addition, Class B Note interest may be subordinated to payment of principal under the Class A Notes. This occurs when outstanding principal losses exceed the then Class B Note balance; in these circumstances, payment of Class B interest is subordinated to the reduction of the PDL and to the topping-up of the First Loss Fund. Class B Note interest can be deferred until later interest payment dates if there are insufficient available funds (but includes interest roll-up).

### **Liquidity**

#### **The Issuer does not have the benefit of a separate Liquidity Facility.**

There are several layers of liquidity support available to Noteholders to counter temporary cashflow shortfalls. These may arise from delinquencies in the pool or interruptions in the servicing or cash collection functions.

The Issuer does not have the benefit of a separate liquidity facility, but Moody's believes that the transaction has adequate liquidity support.

### **Principal Paying Interest**

#### **Principal Paying Interest to meet senior expenses and interest due only.**

The Issuer has the ability to use principal receipts under the mortgage loans to meet its senior expenses obligations and interest due under the Class A Notes (but not the Class B Notes). This provides substantial protection for investors in the Class A Notes against a gradual deterioration in the arrears performance of the portfolio (but not the Class B Notes).

### **First Loss Fund**

#### **First Loss Fund.**

As described above, the First Loss Fund is available to cover interest shortfalls under the Notes.

The value of the liquidity support provided by the First Loss Fund is reduced by the fact that the First Loss Fund is topped-up after payments have been made to investors in respect of any PDL balances that may arise within the structure. Moreover the First Loss Fund is not available to pay Class B Note interest when the outstanding principal losses exceed the then Class B Note balance, as described in "*Interest/Principal Subordination*" above.

This could materially reduce the liquidity available to investors in the junior Notes. However, Moody's believes that the First Loss Fund, which will be fully funded at closing, provides adequate liquidity support for the transaction.

### **Hedging**

#### **The MMR mechanism partially reduces basis risk arising from rate mis-matches.**

The mortgage loans either charge interest at a variable rate set by PML (21.10% of the provisional pool), or by reference to 3 month Libor 57.07% of the provisional pool), or by reference to Base Rate (10.86% of the provisional pool) or at a (temporarily) fixed rate 10.97% of the provisional pool), whereas payments under the Notes are to be calculated by reference to 3-m sterling Libor. The MMR mechanism described above partially mitigates the basis risk that could arise from rate mis-matches because it ensures that weighted average rate received by the deal exceeds Libor under the Notes plus the relevant margins. However, as mentioned above, the protection afforded by this mechanism is susceptible to a number of factors such as relative prepayment speeds of the various loan types in the portfolio.

#### **Further basis risk protection provided by interest rate swaps and caps.**

In order to further mitigate interest rate exposure, the structure also benefits from interest rate swaps provided by JPMorgan Chase Bank, London Branch (**Aa2, Prime-1**) in respect of the fixed mortgages. The swap may require the Issuer to pay certain break costs to the swap provider in the event that mortgages default or prepay. But, payments of these amounts is deeply subordinated in the case where the swap provider is the defaulting party.

The Issuer is also obliged to enter into suitable arrangements with respect to the hedging of further fixed rate or capped rate loans as a result of conversion (see below).

#### **Exchange rate hedging provided by a currency swap.**

The issuer will enter into USD and EUR Sterling cross currency swap with RBS to hedge against interest rate risk and foreign exchange risk on the Class A1a, Class A1c, Class B1a and Class B1c Notes.

### **Accrued Interest**

#### **Accrued Interest.**

The Issuer will purchase all loans which are "current" as at purchase date at par and the amount of all interest and arrears as at purchase date will be retained by PML. Loans which are not current will, however, be sold at par plus the amount of all interest and arrears as at the purchase date. The transaction structure provides for this to be repaid as follows: each payment received will be treated as first representing accrued interest and arrears, current interest and finally principal. It is a term of the transaction that, should the rate at which such interest and arrears amounts are collected fall below Moody's expectations, Moody's may specify that the First Loss Fund is to be increased to a higher amount in order to mitigate this risk.

*The majority of the pool consists of mortgage loans secured on let properties.*

## **COLLATERAL – REFERENCE PORTFOLIO**

About [26]% of the provisional pool comprises the remaining assets of Paragon Mortgages (No. 1) PLC and Finance for People (No.4). Both these transactions were called on the 15<sup>th</sup> of April 2004 and the beneficial title to the assets was sold to a warehouse vehicle (Paragon Second Funding Limited). Approximately [5]% of the provisional pool corresponds to flexible mortgages originated by Mortgage Trust Limited and the beneficial title to these assets will be sold to the Issuer by another warehouse vehicle (Arianty No.1 PLC). The remaining assets correspond to mortgage loans recently originated by Paragon Mortgages Limited.

The majority of the assets supporting the Notes consist of Buy-to-Let first mortgage loans secured on residential properties in England, Wales, Scotland and Northern Ireland. The most distinctive feature of recent transactions from Paragon has been the high proportion of mortgage loans secured on let, as opposed to owner occupied properties. These amount to approximately 97% of the balance of the loans in the provisional pool. Although Moody's believes that the performance of these types of products may exhibit more volatility over the economic cycle, we are comfortable with the transaction for the following reasons;

- The strong underwriting and origination procedures used by Paragon Mortgages Limited ("PML"),
- The strong performance of prior loans secured on let property previously originated by PML. The arrears and losses observed in recent Paragon securitisations have been much lower than in most prime mortgage backed transactions from major mortgage originators.
- The seasoning of the collateral
- The level of credit enhancement available in the deal.

### ***Flexible loans.***

About 5% of the loans in the provisional pool are flexible loans. The flexibility refers to the borrower's ability to redraw principal that is prepaid ahead of its agreed amortisation.

The borrowers may redraw the principal either by withdrawing the relevant amount from their "Flexible Mortgage Account" or by requesting to capitalise their monthly interest payments. In this second case, the capitalisation of interest would result in a credit to the principal deficiency ledger that could be subsequently reduced only through the application of principal redemptions to the revenue priority of payments.

According to the terms of the flexible mortgages, the borrowers will be charged a commitment fee of 1% per annum on the prepaid principal amounts that exceed 20% of the original mortgage balance. The borrowers could still prepay above that limit without incurring in the commitment fee, if they cancel the amount of redraws exceeding 20% of the original mortgage balance. This mechanism should considerably discourage borrowers from running large balances of principal prepayments.

On another point, it should be considered that BTL borrowers have less incentive to prepay than regular owner occupied borrowers, because of the tax deductions in the interest payments available for these products. The reduced prepayment activity is confirmed by the historical CPR experienced in the BTL sector, which has been significantly lower than in the rest of the UK market.<sup>1</sup>

Considering all the above factors and considering the small portion of flexible mortgages present in this pool, in Moody's opinion the risk that the amount of redraws exceed the amount of principal collected is quite remote.

In addition Paragon Finance PLC may, at its own discretion, make available to the Issuer further amounts under the subordinated loan agreement to meet its obligation to repay the redraws.

<sup>1</sup> Please refer to the "UK Non-Conforming RMBS Q4 2003 Performance Review" published in Moody's.com for a detailed analysis of the redemption rates in the BTL market as opposed to the rest of the non-conforming sector.

*The Servicer may, subject to certain pre-conditions, alter payment method or convert loans.*

*Further advances and substitution are subject to a cap.*

## **SUBSTITUTION, CONVERSIONS AND FURTHER ADVANCES**

The Servicer may alter the payment method between repayment and interest only and may also convert fixed rate into floating rate mortgages and vice versa. However, there are pre-conditions to any conversion between interest charging methods; for example, if required to maintain the ratings on the Notes, appropriate hedging must be in place.

The Issuer may use principal receipts from the mortgage portfolio to make further advances to the mortgage borrowers, but the cumulative amount of further advances cannot exceed 16% of the original balance of the Notes issued and is also conditional on the Issuer's continued compliance with various contractual restrictions contained in the transaction documents. In addition, if Moody's indicates to the Issuer that the making of additional Further Advances will result in a downgrade of the Notes, then, unless the First Loss Fund is increased to a level such that Moody's confirms the ratings of the Notes will not be downgraded if additional Further Advances were to be made, the Issuer will no longer be entitled to make Further Advances.

## **PRE-FUNDING**

On the initial issue date, the proceeds from the issue of the Notes will be used to purchase the approximately GBP [700] million of mortgage loans from Paragon Mortgages Limited and from Arianty No. 1 PLC. The remaining approximately GBP [100] million balance (allocable to the pre-funded loans) will be deposited in the Pre-Funding Reserve. During the pre-funded period, these funds will be used to purchase pre-funded loans from the originators, subject to a number of restrictions, including a requirement for a rating confirmation from Moody's regarding the current ratings on the Notes. Moody's will, therefore, perform the same review of the additional collateral as it is added to the deal as it performed with respect to the original completed loans in the pool. To the extent unused, the pre-funding deposit will be repaid to the Noteholders at the end of the pre-funding period.]

## **ORIGINATOR, SERVICER AND DUE DILIGENCE**

Paragon Mortgages Limited, the originator of the Paragon loans and Paragon Finance PLC, the administrator of the Paragon mortgages, are both wholly owned subsidiaries of the Paragon Group of Companies.

Mortgage Trust Limited, the originator of the MTL loans, was registered in England and Wales with private company limited liability status on August 1986. On 30<sup>th</sup> of June 2003 the entire share capital of MTL was acquired by the Paragon Group of Companies. Mortgage Trust Services plc, the administrator for the MTL loans, is a wholly owned subsidiary of Mortgage Trust Limited and ultimately part of the Paragon Group of Companies.

Moody's believes that Paragon has a well developed servicing business with a track record of successful collections and arrears management in the United Kingdom. In addition, GML Mortgage Services Limited is the servicer of last resort.

Moody's conducts regular periodic due diligences of originators and servicers in order to review origination processes and company strategies and in order to assess the risk of a securitisation being affected through servicing interruptions.

## **MOODY'S ANALYSIS**

To determine the provisional ratings on the tranches of Notes, Moody's has used the following methodology, which is applied to most European residential mortgage backed securities markets.



*Moody's analysis focused broadly on:*

- *the collateral*
- *the market sector*
- *the originator*
- *the economic environment*
- *the structure used for the transaction.*

## Loss Distribution

The first step in the analysis is to determine a loss distribution of the pool of mortgages to be securitised. Because of the large number of loans and supporting historical data, Moody's uses a continuous distribution to approximate the loss distribution: the lognormal distribution.

To determine the shape of the curve, two parameters are needed: the expected loss and the volatility around this expected loss number. These parameters are found by looking at two important data sources: historical loss data and the loan by loan model.

Moody's has been provided with loss data with respect to the Originator's mortgage book, and this is used in addition to other applicable and relevant data in order to extrapolate expected losses for the loan pool. Examples of data include market and sector wide performance data, the performance of other securitisations, and other originators' data.

To obtain the volatility under a "stress" scenarios, Moody's will also take into account historical data, however, observed historical volatility may not be significant (given insufficient datapoints, or incomplete data), and in addition may not be representative for the future as it is based on the previous economic environments experienced.

Moody's determines a number representing the enhancement which would be required for a pool of mortgages to obtain a rating consistent with **Aaa** under highly stressed conditions. This number (the "Aaa CE" number) is produced by using a loan-by-loan model, which looks at each loan in the pool individually and based on its individual characteristics such as loan to value or other identified drivers of risk, will produce a benchmark CE number. This assumes stressed recovery rates (through house price decline), time to recovery, interest rates and costs to foreclosure. The weighted average benchmark CE number will then be adjusted according to positive and negative characteristics of each loan or of the pool as a whole to produce the "Aaa CE" number.

The Aaa CE number and the expected loss number are the basis of committee discussions and are used to derive the lognormal distribution of losses of the pool.

The standard deviation of the distribution is found by setting the probability of a loss greater than the expected loss compliant with the idealised expected loss target of the Aaa CE number.

## Tranching and Rating of Notes

Having obtained the loss distribution of the pool, a cash flow model is used to assess the impact of structural features of the transaction, including the priorities of interest and principal, liquidity, the value of excess spread.

The sum of the loss experience per note class weighted by the probability of such loss scenario determines the expected loss on each tranche and hence the rating, which is consistent with Moody's target losses for each rating category.

The provisional rating of the Class A1 Notes is therefore based on an analysis of:

- The characteristics of the mortgage pool backing the Notes;
- The relative roll-rate levels and arrears in this type of lending compared to conventional lending;
- Sector-wide and originator specific performance data;
- Protection provided by credit enhancement and liquidity support against defaults and arrears in the mortgage pool;
- The legal and structural integrity of the Issue.

The provisional ratings of the Class B1 Notes are based on the above factors, and also on an assessment of the extent of their subordinate position within the structure.

## RATING SENSITIVITIES AND MONITORING

Moody's will monitor the transaction on an ongoing basis to ensure that the transaction continues to perform in the manner expected, including checking all supporting ratings and reviewing periodic servicing reports. Any subsequent changes in the ratings will be publicly announced and disseminated through Moody's Client Service Desk.

Moody's will also publish a quarterly Performance Overview for this transaction, which will contain summarised information about the asset and note performance, as well as any other material changes affecting the Notes.

## RELATED RESEARCH

*Visit [Moody's.com](http://Moody's.com) for more details.*

For a more detailed explanation of Moody's approach to this type of transaction as well as similar transactions please refer to the following reports available on Moody's.com. Performance Overviews are currently also available for all the previous transactions of the Paragon Mortgages series.

- Moody's Approach to Rating UK Residential Mortgage-Backed Securities – 6<sup>th</sup> May 1998
- The Lognormal Method Applied to ABS Analysis – 27<sup>th</sup> July 2000
- Default and Recovery Rates of Corporate Bond Issuers – February 2002
- Performance of UK Residential Mortgages 1985-2000 – 2<sup>nd</sup> September 2002
- UK Non-Conforming RMBS Q4 2003 Performance Review – 6<sup>th</sup> February 2004

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