

## BZ Hipotecario 4

**Banco Zaragozano  
RMBS  
Spain**

### CLOSING DATE

November 2002

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**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 25 October 2002. 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 **prospective** ratings set forth in this report. Moody's will disseminate the assignment of definitive ratings through its Client Service Desk.

### RATINGS

Class	Rating	Amount	% of Total	Legal Final Maturity	Expected Maturity
A	(P)Aaa	€304,000,000	97.0%	Oct-2032	Jan-2032
B	(P)A2	€6,600,000	2.10%	Oct-2032	Jan-2032
C	(P)Baa2	€2,800,000	0.90%	Oct-2032	Jan-2032
Total		€313,400,000	100.0%		

The ratings address the 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, such as those associated with the timing of principal prepayments and other market risks, have not been addressed and may have a significant effect on yield to investors.

### OPINION

#### Strengths of the Transaction

- Good quality collateral – low WALTV, good geographical diversification, relatively good seasoning and strong performance in the past
- The experience of Europea de Titulización as a *gestora* and the supporting guarantee of the *gestora* obligations by all of its shareholders
- Strong performance and track record on previous deals

#### Weaknesses and Mitigants

- Transaction not protected with swap
- Non rated originator, but with a proven experience in mortgage loan lending



## STRUCTURE SUMMARY

Issuer:	Banco Zaragozano
Structure Type:	Spanish <i>Fondo de Titulización Hipotecaria</i> (FTH)
Seller/Originator:	Banco Zaragozano
Servicer:	Banco Zaragozano
Interest Payments:	Quarterly on 18 January, 18 April, 18 July, 18 October
Principal Payments:	Pass-through on a quarterly basis
Credit Enhancement/Reserves:	Subordination-Reserve Fund-Excess Spread
Liquidity Facility:	N/A
Hedging:	N/A
Paying Agent:	Banco Zaragozano
Security Trustee:	Europea de Titulización S.G.F.T, S.A
Note Trustee:	Europea de Titulización S.G.F.T, S.A
Arranger/Lead Manager:	Banco Zaragozano

## COLLATERAL SUMMARY

Assets:	Mortgage Shares ( <i>participaciones hipotecarias</i> : PH)
Number of Loans:	6,069
Number of Borrowers:	6,069
Type of Equipment:	Residential Properties
Geographic Diversity:	Madrid (22%), Catalonia (19%), Andalucia (16%)
Current WALTV:	49.26%
Remaining Term:	17.5 years
Seasoning:	1.42 years
Total Amount:	€329,554,230
Delinquency Status:	No loans in arrears for more than 90 days at the closing time

<b>Class</b>	<b>Subordination</b>	<b>Reserve Fund</b>
A	3.00%	1.35%
B	0.90%	1.35%
C	-----	1.35%

**Moody's assigns rating to Banco Zaragozano's fourth transaction**

**OVERVIEW**

Banco Zaragozano taps the market for the fourth time with this transaction consisting of the securitisation of traditional mortgage loans. The purpose of this transaction is to obtain liquidity and to remove from Zaragozano's balance sheet the credit risk linked to the mortgages. Banco Zaragozano will sell its mortgage portfolio to BZ Hipotecario 4, a mortgage securitisation fund (*fondo de titulización hipotecaria* – FTH). The *fondo* in turn will issue three classes of notes to fund the purchase of this portfolio. The total initial purchase price of the mortgage loans will be equal to the proceeds received from the issue of the rated Class A, Class B and Class C notes.

The product being securitised is almost entirely made up of first-lien mortgage loans, granted to individuals residents in Spain. However, the pool contains a percentage of loans whose main purpose is the purchase of secondary residences – approximately 4.30% of the portfolio. The portfolio comprised 6,069 loans representing a provisional portfolio of €329,554,230. In line with the pattern adopted by previous Banco Zaragozano transactions, the main feature of this deal is the good quality of the mortgage loans. The current Weighted Average LTV (WALTV) is 49.26%, which is considered low within the Spanish market.

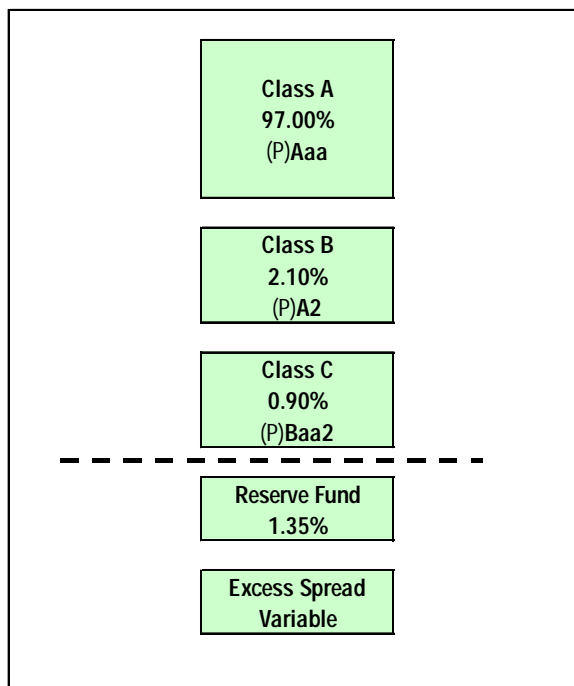
**STRUCTURAL AND LEGAL ASPECTS**

The mortgage securitisation notes (*bonos de titulización hipotecaria* - BTHs) are issued by the FTH, which is to be created and managed by Europea de Titulización, S.G.F.T, S.A., the management company (*gestora*).

Under Spanish law, each PH represents a certain percentage of a single mortgage loan for the entirety of its remaining life and grants to its holder the right to undertake executory action against the originator. As the *fondo* does not possess any legal personality, any such action must be taken on its behalf by the *gestora*. In this transaction, all of the PHs represent 100% of the underlying mortgage loan and pay interest at the mortgage rate. Payments of interest on PHs purchased by a mortgage securitisation fund are not subject to withholding tax. However, interest payments on the BTHs issued by the fund may be subject to withholding tax.

**Transaction structured as a mortgage securitisation fund (FTH)**

**Structure Overview**



Structurally, BZ Hipotecario 4 has the same format as Zaragoza's most recent issuance. The transaction consists of three rated tranches: a senior tranche for an amount equal to €304,000,000, a mezzanine tranche for an amount equal to €6,600,000 and a subordinated tranche for an amount equal to €2,800,000. There are three levels of credit enhancement in this transaction. The certificate holders are protected from losses with a subordinated structure, a reserve fund and excess spread.

**Treasury Account**

Caja Madrid (**Aa2/P-1**) will hold the Treasury Account. Moody's has set up some triggers in order to protect the treasury account from the possible downgrade of the long-term rating of Caja Madrid (as treasury holder). In this sense, if Caja Madrid is downgraded below A1, the Management Company will act as follows in order of priority:

- 1) The fund's treasury account will be transferred to an institution whose rating is at least P-1
- 2) To obtain a P-1 rated entity to guarantee the fund

If options 1 and 2 are not possible, the Management Company will obtain from Banco Zaragoza or Caja Madrid a third-party collateral security in favour of the fund or financial assets with credit quality of not less than the Spanish state government stock.

**Transaction NOT protected with swap**

The structure is exposed to interest rate risk. Interest payable on the Class A,B and C notes is 3 months Euribor (reset on a quarterly basis), while most of the PHs are linked to 12 months Euribor and Mibor (reset on a yearly basis). Potential shortfalls due to this basis risk have been considered in Moody's analysis, and the reserve fund has been sized accordingly.

**Valuation of Excess Spread**

The first layer of protection comprises the spread in the transaction, which is the difference between (i) the interest earned on the PHs and (ii) the coupons paid on the BTHs and other obligations. Moody's assessed the value of the ongoing spread under a variety of adverse conditions that would minimise its availability, including prepayment speeds, various loss distribution and high arrears levels.

The following table shows the distribution of mortgage loans according to the benchmark index applicable to them for determining the nominal interest.

Benchmark Index	Outstanding Principal	%	% Margin o/Index
Year Euribor	309.225.487	93.83%	1.00
Year Mibor	19.499.678	5.92%	1.22
6 months Mibor	33.015	0.01%	1.50
TMPH All Institutions	796.049	0.24%	0.24
<b>Total</b>	<b>329.554.230</b>	<b>100%</b>	

**Reserve fund will be fully funded on closing date**

The reserve fund (RF) is the second layer of protection available to investors and will be used to cover potential shortfalls in interest on an ongoing basis, and to protect the deal from potential shortfalls of principal at the end of the transaction. The amortisation of the reserve fund will be variable and related to the excess spread available in the transaction. The required level of the RF will be the lesser of the following amounts:

1. [1.35%] of the initial amount of the Nominal balance of the notes or
2. The higher of the following amounts:
  - [2.20%] of the outstanding notional balance of the notes "the Cap"
  - [0.55%] of the initial amount of the nominal balance of the notes "the Floor"

However depending on the excess spread available in the transaction the 2.20% ("the Cap") and the 0.55% ("the Floor") may be adjusted according to the following:

- If the weighted average margin over the loans is higher than 0.85% and lower than 0.95%- "the Cap" will be [2.7%] of the outstanding notional balance of the notes and the Floor" will be [0.625%] of the initial amount of the nominal balance of the notes.
- If the weighted average margin over the loans is higher than 0.75% and lower than 0.85%- "the Cap" will be [3.2%] of the outstanding notional balance of the notes and "the Floor" will be [0.750%] of the initial amount of the nominal balance of the notes

Amortisation of the reserve fund will cease if the following scenarios occur:

- The outstanding amount over 90 days in arrears represents more than [2.0%] of the outstanding amount
- There is a principal deficiency
- Weighted average interest rate under the PHs < weighted average interest rate under the bonds plus [0.40%] spread

### **Waterfall**

On each quarterly payment date, all available funds (including any proceeds from the portfolio, amounts available under the reserve fund that may have been received) will be distributed in the following sequential order:

1. Cost and fees
2. Interest payment to Class A Notes
3. Interest payment to Class B Notes
4. Interest payment to Class C Notes
5. Reserve Fund replenishment
6. Withholding for principal
7. Junior Cost (payment of interest accrued on the starting expenses loan, repayment of the principal of the starting expense loan, repayment of the principal of the subordinated loan, payment to the servicer under the servicing agreement of the fee for servicing the participated mortgage loans and variable remuneration under the subordinated loan).

### **Pro rata amortisation**

Notes will be amortised pro-rata. Pro-rata amortisation entails risk as opposed to fully sequential transactions given that the credit enhancement decreases in absolute terms. The risks introduced by pro-rata amortisation are mitigated by the following triggers:

- Class B Notes will start amortising pro-rata with the Class A notes when they represent [4.20%] of the outstanding balance under the Class A, B and C notes.
- Class C Notes will start amortising pro-rata with the Class A and B notes when they represent [1.80%] of the outstanding balance under Class A, B and C notes.

However, the pro-rata amortisation will cease if:

- There is a principal deficiency (i.e. there are not enough funds available to pay the principal withholding on any payment date), or
- The outstanding amounts that are more than 90 days in arrears represent more than [2.0%] outstanding amount of the loans, or
- The available amount under the reserve fund is less to the then current required amount

In addition to these triggers, the pro-rata amortisation will cease when the loan balance is less than 10% of the initial loan balance.

**Clean up call option**

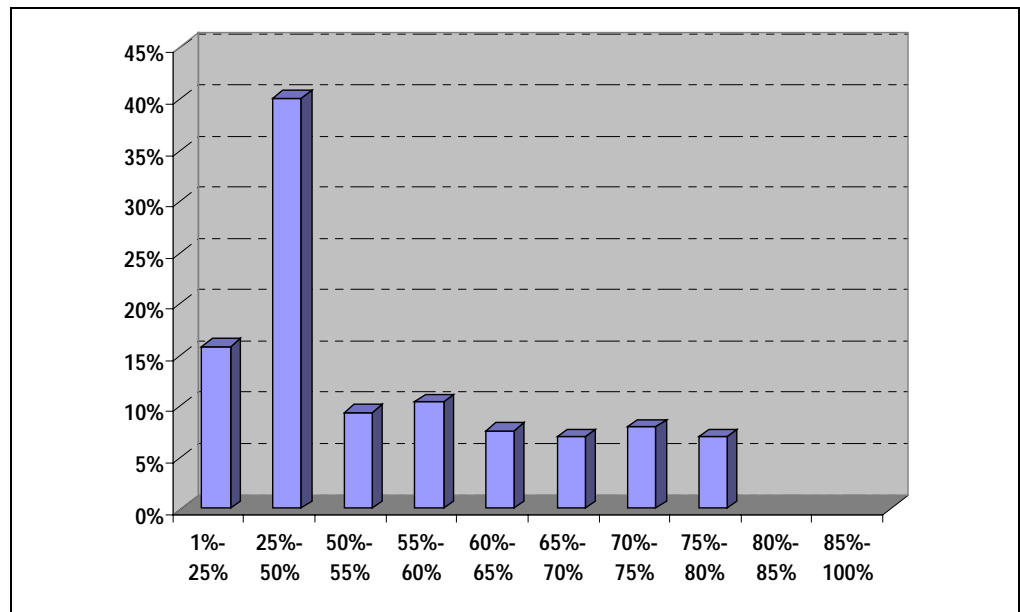
The originator has a clean-up call option: it can purchase the loans back when the current portfolio balance is less than 10% of the initial portfolio balance.

**COLLATERAL – PROVISIONAL PORTFOLIO**

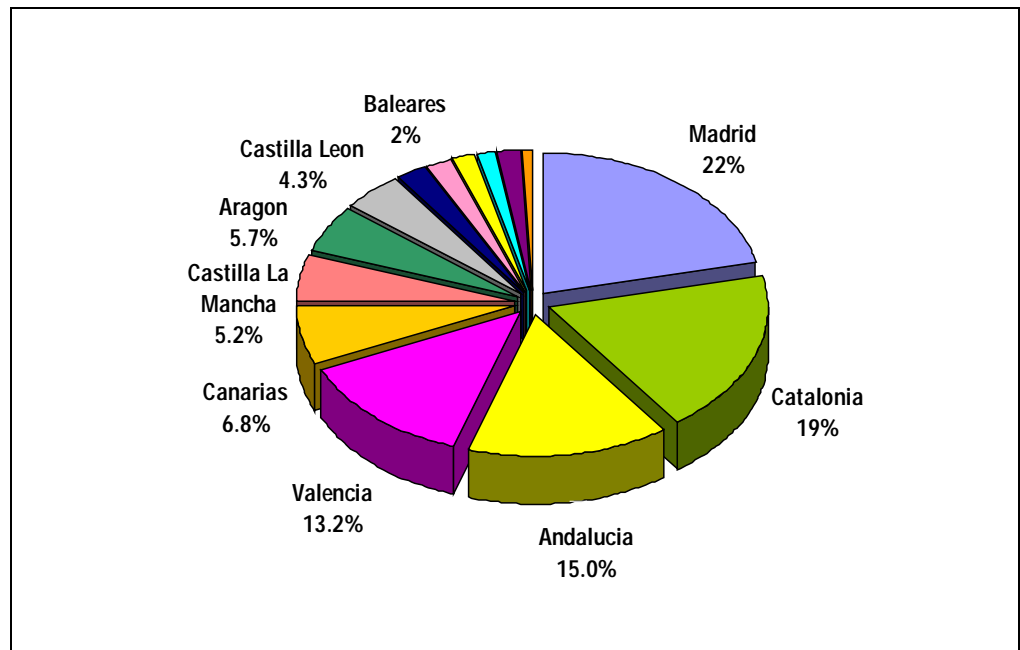
**Collateral characteristics**

As of October 2002, the mortgage portfolio comprised 6,069 mortgage loans, which are originated between 1994 and 2002. The collateral backing the note issuance is almost entirely made of first property mortgage loans – only 4.30% of the portfolio is composed of second home properties. All the properties on which the mortgage security has been granted are covered by property damage insurance and fire insurance. The portfolio shows a low current WALTV of approximately 49.26% – only 3.31% of the portfolio had original LTVs over 80%. However, at the time of securitisation, every loan already had an LTV lower than 80%. The pool also benefits from a good seasoning of 1.42 years. The average loan size is €54,301 and the highest size is €613,547. The pool has good diversification, with a natural bias towards Madrid (22%), Catalonia (19%) and Valencia (13.4%).

**Distribution By Current LTVs**

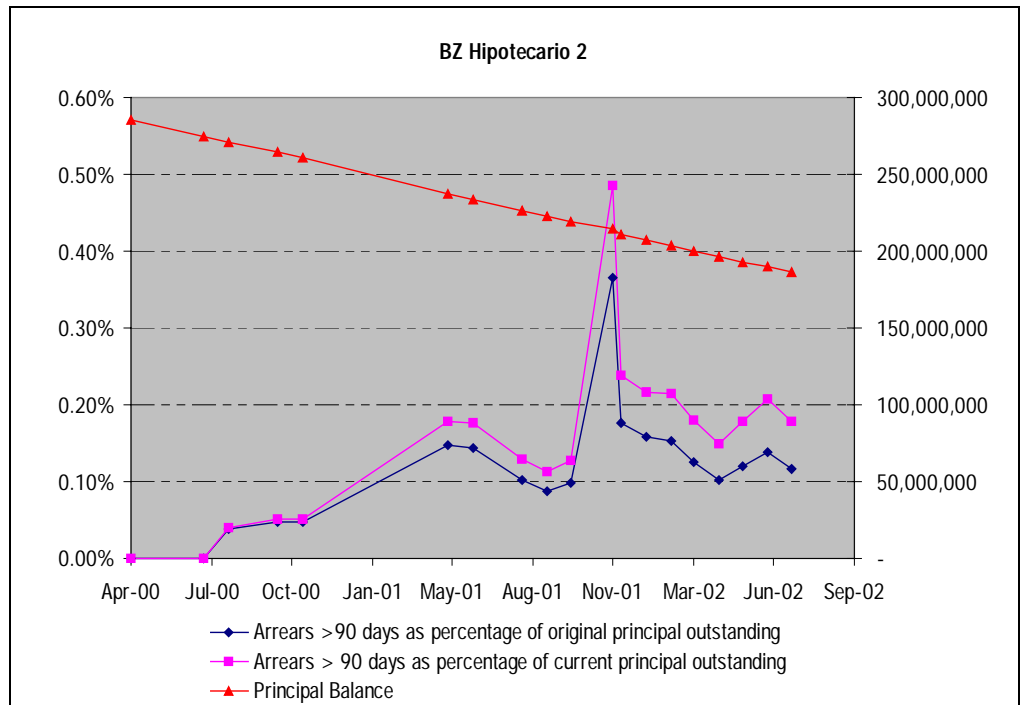
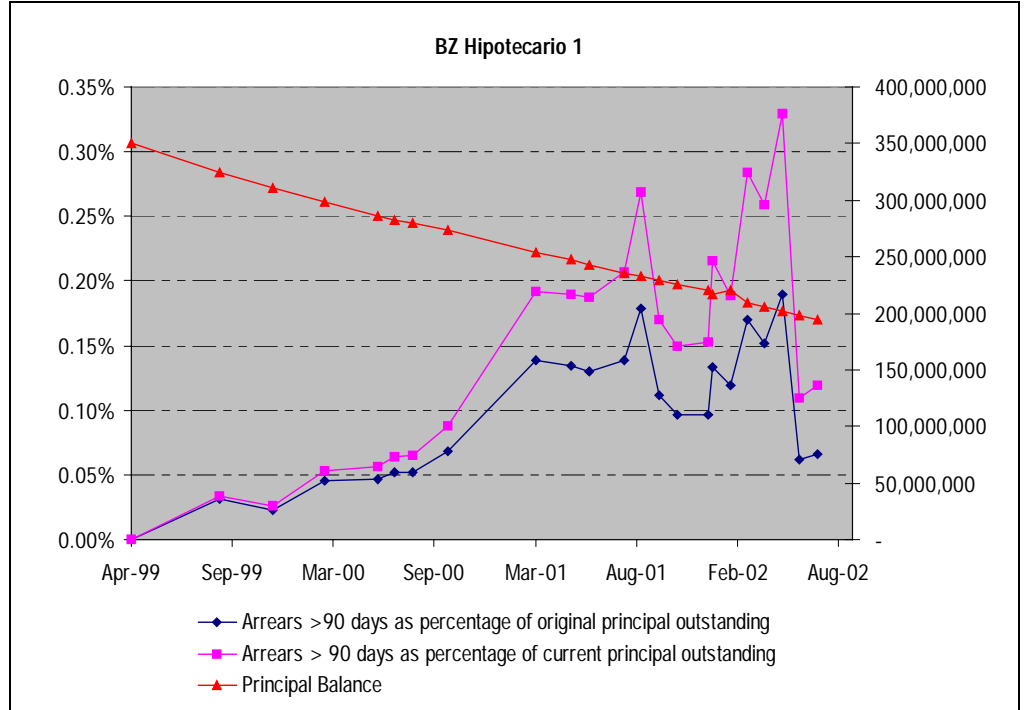


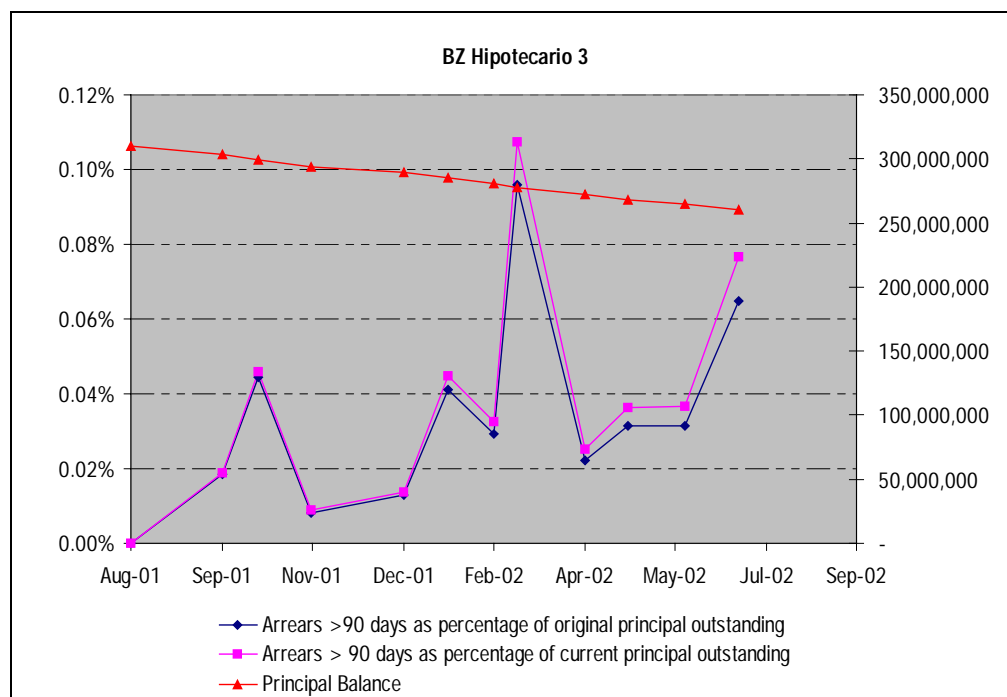
**Distribution By Geographic Diversification**



**Performance data for previous BZ Hipotecario transactions – Strong performance in the past**

The previous BZ Hipotecario transactions have so far been performing very well with 90+ days' arrears levels not exceeding 0.5%. BZ Hipotecario 1, with over three years since origination, has been performing well, arrears levels are still quite low reaching 0.33% of the outstanding balance of the transaction in May 2002. In order to obtain additional performance data for previous deals, Moody's is committed to publishing on [www.moody's.com](http://www.moody's.com) performance overviews that contain deal-specific information, analysis and performance of the transactions.





**As compared with previous BZ Hipotecario transactions**

Moody's believes that the quality of the loans is definitely in line with the previous BZ Hipotecario transactions in terms of geographical concentration, excess spread and product type. This time the transaction benefits from:

- Lower WALTV levels than its predecessors.
- Better seasoning than the last BZ Hipotecario transaction.
- Newly calibrated model: BZ Hipotecario 4 also benefits from the revision of Moody's Loan-by-Loan (LBL) model and the updating of several of the model parameters. The changes that the revised new model has brought are: (i) new market-wide information on house prices, appraisal values and delinquency levels and (ii) revised in on the current severity of loss assumptions. In addition, the track record performance on previous MBS transactions has helped bring credit enhancement levels down.

However, this transaction has slightly negative features. Firstly, Banco Zaragozano will securitise loans with original LTVs over 80% -approximately 3.31% of the portfolio has high LTVs. It is worth mentioning that neither at present nor at the closing date will there be any loans with LTVs over 80%. Secondly, approximately 4.30% of the portfolio is made up of second home properties.

	BZ 1	BZ 2	BZ 3	BZ 4
<b>Aaa</b>	96.74%	96.70%	96.23%	<b>97.00%</b>
<b>A2</b>	3.36%	3.30%	2%	<b>2.10%</b>
<b>Baa2</b>	-----	-----	1.77%	<b>0.90%</b>
<b>RF</b>	2%	2%	1.50%	<b>1.35%</b>
<b>WALTV</b>	53.03%	49.87%	50.26%	<b>48.75%</b>
<b>Geog. Conc.</b>	Madrid (23%)	Madrid (23%)	Madrid (21%)	<b>Madrid (22%)</b>
<b>Seasoning</b>	2.21 Years	2 Years	0.75 Years	<b>1.42 Years</b>
<b>TOTAL CE</b>	<b>5.36%</b>	<b>5.30%</b>	<b>5.27%</b>	<b>4.35%</b>



## ORIGINATOR, SERVICER AND DUE DILIGENCE

### *Originator*

Banco Zaragozano is present in every region of Spain, with a branch network of 369. Moody's reviewed the facilities, underwriting and collections procedures, and servicing systems of the originators and compared them with the overall lending practice of banks and mortgages lenders in Spain. Moody's believes Banco Zaragozano is capable of fulfilling its servicing obligations in the transaction.

### *Management Company*

The management company (*gestora*), Europea de Titulización, is an experienced company. Its obligations within the structure are guaranteed by its shareholders in proportion of their holding. BBVA accounts for 83% of the *gestora's* capital. The remainder is owned by 15 institutions including JP Morgan 4%, Caja de Ahorros del Mediterráneo 1.54%, Bankinter 1.53%, Barclays Bank 1.53%, Citibank España 1.53%.

## MOODY'S ANALYSIS

### *Moody's rating process involves a Collateral, Structural and Legal Analysis*

In order to analyse the risk of the transaction and to assess the size of the credit enhancement consistent with the rating assigned, Moody's adopts a three-part focus to its analysis:

- **Collateral Analysis** - Although *Moody's does not believe that any predetermined model can accurately reflect all of the possible risk factors and combinations* within the Spanish mortgage market, a quantitative-based model (Loan-by-Loan) has been developed to assist in the analysis of mortgage loans under various conditions.

Under the loan-by-loan approach, Moody's calculates an enhancement level for each loan in the pool to be securitised in the following three ways:

- Deriving a *benchmark credit enhancement number* based on its loan-to-property value ratio (LTV). This number assumes that all of the characteristics of the loan (other than LTV) are identical with those of a good quality *benchmark loan*.
- Assumptions: In the loan-by-loan model, a benchmark credit enhancement figure is obtained by taking into account each loan's current LTV level, and by penalising or benefiting any parameter that on aggregate may shift from our benchmark loan assumption. The model takes into account the following severity of loss assumptions: (1) house price decline of 30%, (2) interest rates going up to 8%, (3) 27 months to sell a property, and (4) 7% costs associated with the sale of the property. High interest rates affect the affordability, but also increase the severity over the period in which repossession takes place. This period has been assumed to be 27 months, which is approximately twice as long as currently experienced. We also assumed the cost of the sale to be 7%.
- *Modifying* the resultant *benchmark credit enhancement number* for each loan so as to reflect how the individual characteristics of that loan differ from those of a benchmark loan. These adjustments can be both qualitative and quantitative.
- Adding the enhancement levels for each loan in the pool together, and then adjusting this result based on the overall *concentrations of certain loan characteristics* in the pool.

The results of this loan by loan model are then reviewed by the rating committee along with performance data that has been provided by the originator, and information available to Moody's from previously securitised pools.

- **Structural Analysis:** This considers how the cash flows generated by the mortgage collateral are allocated to the parties within the transaction, and the extent to which various structural features of the transaction may provide additional protection to investors, or act as a source of risk themselves.
- **Legal Analysis:** Moody's considers whether the legal documents ensure that the cash flows are allocated to the assumptions made in its structural analysis.

*For more information regarding Spanish MBS rating methodology refer to Moodys.com – "Spanish Residential Mortgage Backed Securities, An Introduction to Moody's Rating Approach".*

## **RATING SENSITIVITIES AND MONITORING**

***Moody's will monitor the performance on the transaction on an ongoing basis***

Europea de Titulización, S.G.F.T, S.A, in its capacity as management company, will prepare quarterly monitoring reports with respect to the portfolio and payments to the notes. These reports will detail the amounts received by the issuer during each collection period and will provide portfolio data. Moody's will monitor this transaction on an ongoing basis to ensure that it continues to perform in the manner expected, including checking all supporting ratings and reviewing periodic servicing reports. For updated monitoring information, please contact monitor.madrid@moodys.com.

## **RELATED RESEARCH**

***Previous transactions***

For more details of Moody's approach to this type of transactions as well as similar transactions, please refer to the following reports:

BZ HIPOTECARIO 1 NIR + PERFORMANCE OVERVIEW  
 BZ HIPOTECARIO 2 NIR + PERFORMANCE OVERVIEW  
 BZ HIPOTECARIO 3 PERFORMANCE OVERVIEW

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