Spanish Residential Mortgage Backed Securities
An Introduction to Moody's Rating Approach

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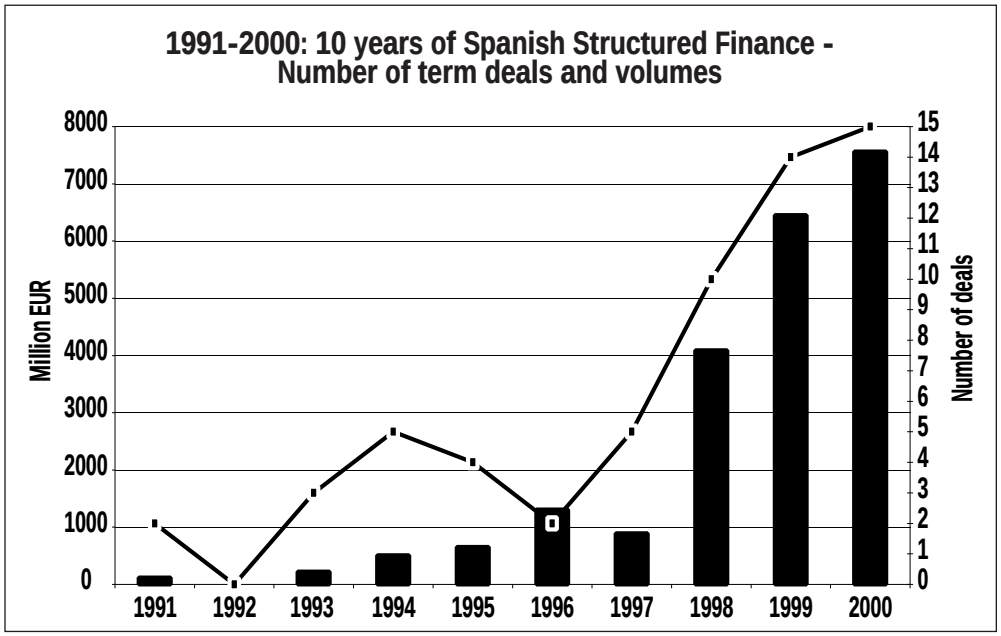
1. INTRODUCTION



The Spanish MBS market has grown rapidly in recent years[1] and Moody's is committed to assisting investors and other market participants in understanding this asset type, and the way that its credit risk is analysed. Moody's has rated 95% of the RMBS market (figures as of December 2000) and this special report provides investors with an introduction to Spanish Residential Mortgage Backed Securities ('RMBS') and the way their risk is analysed.

Moody's approach to rating Spanish RMBS has remained broadly consistent over the years, but it does take into consideration new developments and factors that may have an impact on the Spanish mortgage market. These changes include:

- *New market-wide information* on house prices, appraisal values, and delinquency levels.
- *Track record performance of previous MBS transactions.* Moody's believes that the performance data that it has obtained on individual pools since the Spanish MBS market started in 1991 is an exceptionally powerful source of ongoing data regarding individual pools, particular mortgage product types and also specific originators.
- *Royal Decree 926/1998.* The Real Decreto 926/1998 allowed for revolving structures (as well as permitting for asset types other than mortgages to be securitised).
- *Development and experience of Gestoras.* Many gestoras (asset management companies) now have a strong track record within the Spanish mortgage market.

1 See "A review of the Spanish Securitisation market 1991 - 2001" *Moody's Special Report*.

2. MOODY'S EXPECTED VALUE APPROACH

Moody's ratings provide investors with a simple system of gradation by which the relative credit quality of the bonds may be judged. Moody's aim is to assign ratings so that bonds of similar rating levels suffer equivalent credit losses over time, irrespective of their country of origin or sector.

Change in the Internal Rate of Return Helps Compare the Credit Quality of Securities

One method of comparing the credit quality of securities is to look at the change in the internal rate of return (IRR) attributable to credit losses. Over long periods of time, a portfolio of Spanish RMBS in a given rating category should have a similar change in IRR from credit losses, as does a portfolio of traditional corporate bonds in this same rating category. This consistency is the basis of Moody's "expected value" approach to rating Spanish RMBS.

Under the expected value approach, Moody's considers whether the rated securities will suffer credit losses under a wide range of scenarios. The rating assigned to any given security is dependent on the weighted average outcome across all of these scenarios. This is in contrast with the "weak link" approach (which Moody's does not employ), which is based on a single breakeven stress test, and under which the final rating of a security can never be higher than the weakest credit component of the structure. Instead, Moody's considers the probability that each of the elements within the structure will perform as promised, and the subsequent effect upon investors in the rated obligations if this does not occur.

The expected value approach allows Moody's ratings to address both the severity of credit losses to investors as well as their frequency. Frequency of default refers to the relative likelihood that there will be any difference at all between what investors were promised and what they actually receive. Default Severity quantifies this difference.

Consequences of Using the Expected Value Approach

From a Spanish RMBS perspective, there are several direct consequences of using the expected value approach. For example, two securities with the same level of credit enhancement and expected losses on their collateral could receive different ratings if their sensitivity to additional losses past the break-even point was different. This typically occurs in one of two ways:

(1) the expected volatility of losses on their collateral assets may not be identical;

(2) the same level of losses on the collateral assets may cause different levels of loss to investors in the rated securities. This is especially relevant when evaluating mezzanine notes as their loss severities are often highly geared to fluctuations in the performance of the collateral.[2]

Moody's RMBS Rating Process Involves a Collateral, Structural and Legal Analysis

Moody's typically implements the rating process for RMBS in three parts: Collateral, Structural and Legal analysis.

- *Collateral Analysis* focuses on the amount of cashflows generated by the underlying mortgage assets supporting the transaction
- *Structural Analysis* considers how the cashflows generated by the mortgage collateral are allocated to the parties within the transaction, and the extent to which various structural features of the transaction (such as swap agreements) may provide additional protection to investors, or act as sources of risks themselves.
- *Legal Analysis.* Moody's considers whether the legal documents ensure that the cashflows are allocated to the assumptions made in its structural analysis, and whether any of the other terms of the transaction documents introduce additional credit risks to the transaction. Moody's will also typically review legal opinions provided by external law firms that address the enforceability of the legal agreements and related matters.

2 See Moody's Special Comment "Rating Mezzanine Securities in Structured Finance Transactions: The Impact of an Expected Value Approach."

3. COLLATERAL ANALYSIS

3.1 Methodology

The primary objective of a mortgage pool analysis is to determine the potential level of losses resulting from individual mortgage loan defaults that the securitised portfolio of mortgages (or "pool") is likely to experience during its life, and the anticipated variance around this point. This information can in turn be used to determine the credit losses to investors in the rated securities in a range of scenarios — the foundation of Moody's Expected Value Approach to ratings. The collateral rating approach is a critical element in determining the rating of a particular mortgage-backed security.

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 this model however, investors typically discover that the most significant elements of Moody's collateral analysis are the loan-to-value of the mortgage and those factors that address the extent and stability of a borrower's income.

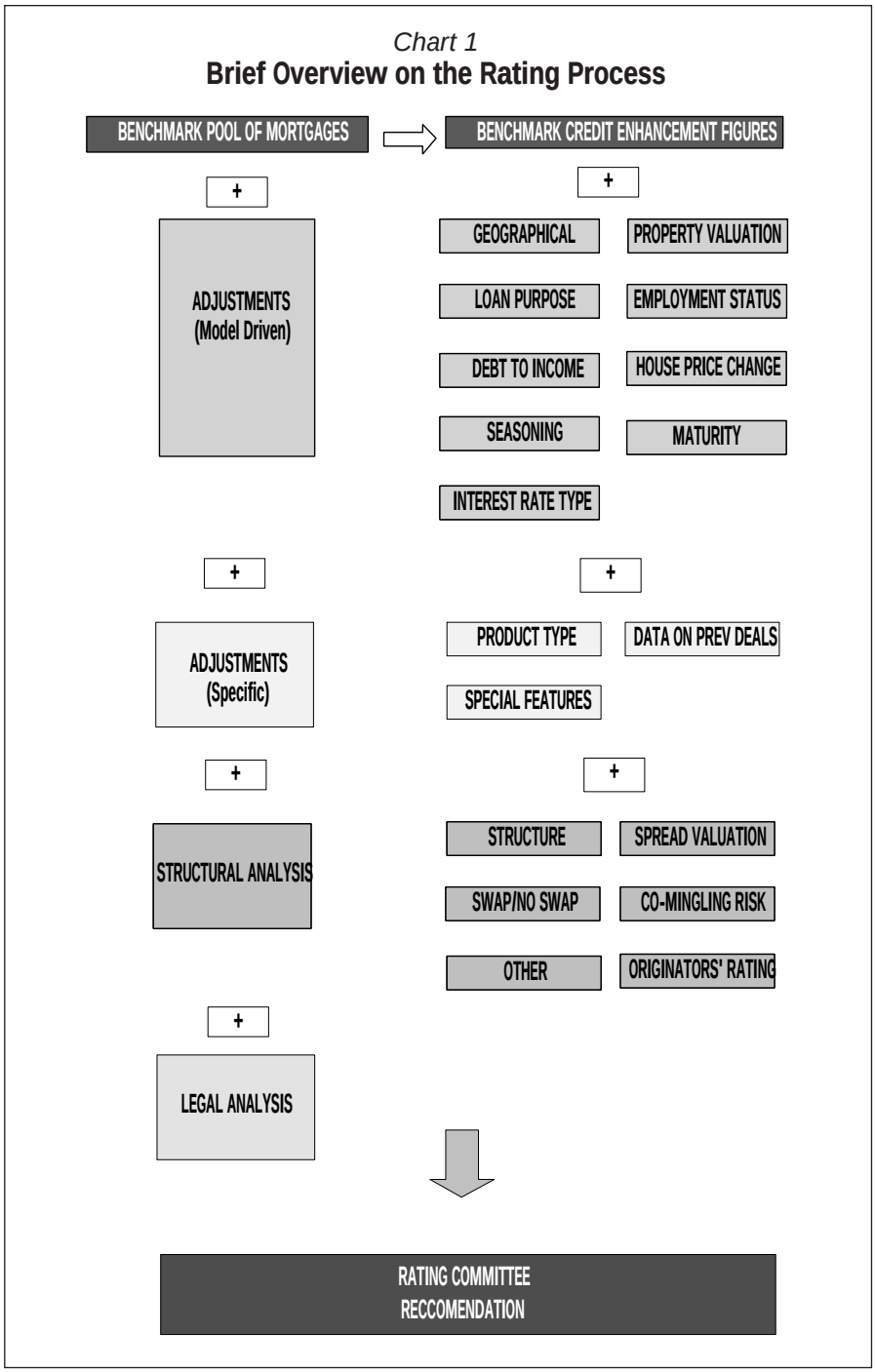
Under the loan-by-loan approach, Moody's calculates an enhancement level for each loan in the pool to be securitised in the following three ways:

- 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*.
- 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 provided by the originator, and information available to Moody's on previously securitised pools.

Chart 1

Brief Overview on the Rating Process



3.2 The Benchmark Loan

The benchmark pool of mortgages used for the Spanish Market consists of "plain vanilla" mortgage loans, with characteristics that are common in good quality Spanish mortgage loans. This benchmark loan does not remain static and is adjusted over time to reflect market conditions:

Table 1

Characteristics of the Spanish Benchmark Pool of Mortgage Loans

Type of Mortgage	15-Year Floating Rate Amortising Loan, linked to MIBOR, EURIBOR, IRPH, or CECA,
Seasoning	Between 12 to 24 months
Concentration	Minimum of 300 loans, max 1% of pool per loan. Regional distribution according to Table 3
Mortgage Status	Mortgage not in arrears
Insurance	Home Insurance for full value of loan
Property Valuation	Average house price value for a particular region
Loan Purpose	Purchase or re-mortgage without Equity withdrawal
Property Usage	Single family, owner-occupied, primary residence
Security	First Legal Mortgage
Underwriting	Traditional underwriting done following industry standards and performed by a company with a proven record of low arrears Income Verification External valuation of the properties Credit references analysis
Servicing	Experienced creditworthy servicer

3.3 Deriving the Benchmark Credit Enhancement Number

The credit loss on any mortgage pool is a function of the frequency of borrower defaults ("default frequency"), and the severity of the resulting losses that cannot be recovered though the sale of the property ("default severity").

Moody's believes that the borrower's equity in a home is one of the prime determinant of the relative probability of default within a portfolio of mortgages. A borrower is more likely to default on a property if the option to sell it and retain some amount of profit diminishes. Initial equity is also a measure of a borrower's savings capability and therefore an indicator of credit quality.

Moody's has established benchmark credit enhancement numbers for each LTV band that are sufficient to protect Spanish benchmark mortgage loans from losses consistent with an **Aaa** rating.

Under the loan by loan analysis, each of the loans in the portfolio is given an individual benchmark credit enhancement figure. Loan by loan analysis uses the actual LTV of each loan, rounded up to the nearest 1%. There is a credit enhancement benchmark for each 1% band.

Appendix II: "Example: How to Obtain A Credit Enhancement Figure" contains an example of how a benchmark credit enhancement figure may be derived.

Table 2

Benchmark Credit Support Aaa Level by LTV Bands

LTV % (<=)	55	60	65	70	75	80	85	90	100
FREQUENCY	6.75	6.75	7.50	8.25	9.25	10.50	13	16.90	23.50
BENCHMARK	2.2	2.61	3.39	4.19	5.15	6.30	8.29	11.44	17.22

3.4 Adjusting the Benchmark

When the characteristics of the mortgage loans under study are considered to be more or less riskier than a benchmark loan, adjustments are made to the credit enhancement benchmark number. These adjustments often take the form of a factor (*credit enhancement factor* or CEF), which is multiplied by the credit enhancement benchmark number for that loan.

Each adjustment to the benchmark is generally calculated independently. A loan with a benchmark credit enhancement number of 6% and two +10% CEFs would therefore have an adjusted result of 7.2%, rather than 7.26%.

3.4.1 Geographic Concentration

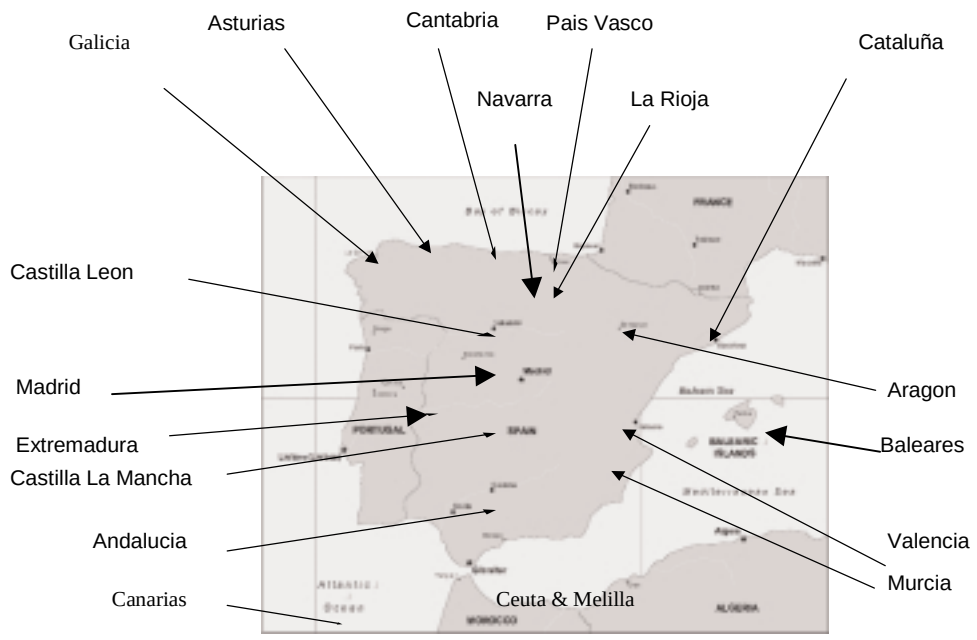
Moody's benchmark portfolio assumes that the mortgage pool to be securitised is distributed according to the distribution of mortgages presented in *Table 3*.

Table 3
Benchmark Regional Mortgage Distribution

ANDALUCIA	14.0%
ARAGON	2.0%
ASTURIAS	2.5%
BALEARES	3.6%
CANARIAS	4.0%
CANTABRIA	1.0%
CASTILLA LEON	4.0%
CASTILLA LA MANCHA	3.4%
CATALUÑA	21.0%
CEUTA	0.5%
EXTREMADURA	1.5%
GALICIA	4.0%
MADRID	19.0%
MELILLA	0.5%
MURCIA	2.0%
NAVARRA	1.0%
VALENCIA	10.0%
PAIS VASCO	4.0%
LA RIOJA	2.0%

Regional concentration can increase the volatility of losses in a portfolio of mortgages, and thus the probability of losses exceeding any given credit enhancement level. Moody's reflects this in its analysis by requiring additional credit enhancement if its highest ratings are to be assigned, and so the more diversified a portfolio of mortgages is, the lower the CEF which the pool of mortgages will receive. The Spanish benchmark mortgage portfolio assumes that the mortgage pool is distributed according to the distribution of mortgages outlined above. Moody's adjusts for regional concentration by assigning a CEF of +0.5% for every 1% of the pool in excess of the assumed benchmark distribution.

Figure 1



Moody's recognises that different regions may have particular characteristics. For instance, a portfolio of properties concentrated in coastal property regions may have a higher CEF factor because the regions are intrinsically more volatile in addition to the fact that they reduce the diversification of the portfolio.

Finally, Moody's also considers whether an originator may have specialist skills or knowledge of a particular market niche or in underwriting loans in a given area.

The benchmark regional mortgage distribution has been established, taking into consideration both the number and the outstanding balances of mortgage loans issued in a certain region.

3.4.2 Property Valuation

The benchmark credit enhancement guidelines assume that none of the properties securing loans in the pool are of an unusually large size for their region. Higher value properties may carry additional risk for a number of reasons:

- Valuations on properties with high prices for their area are more likely to be inaccurate as often only limited comparable property is available.
- Higher value homes may exhibit greater price volatility than other properties in the same area.
- Higher value homes often take longer to sell after repossession by a lender.

Moody's has analysed the Spanish Comunidades Autónomas (Spanish Autonomous Communities, or CCAAs) and has therefore classified them according to three different categories: High, Average and Low depending on house price information, as listed in *Table 4*.

Table 4

Spain - Regional Concentration by House Prices & Regional Mortgage Distribution

High	Average	Low
BALEARES	ARAGON	ANDALUCIA
CATALUÑA	ASTURIAS	CASTILLA LA MANCHA
MADRID	CANARIAS	C. VALENCIANA
PAIS VASCO	CANTABRIA	CEUTA
	CASTILLA LEON	EXTREMADURA
	LA RIOJA	GALICIA
	NAVARRA	MELILLA
		MURCIA

Table 5

House Price Adjustments		Penalties According to Region		
House Price Bands (mn Ptas)		HIGH	AVG	LOW
0	12,000,000.00	0%	0%	0%
12,000,000.01	16,000,000.00	0%	0%	2.5%
16,000,000.01	20,000,000.00	0%	2.5%	7.5%
20,000,000.01	25,000,000.00	2.5%	7.5%	12.5%
25,000,000.01	30,000,000.00	7.5%	12.5%	17.5%
30,000,000.01	40,000,000.00	12.5%	17.5%	25%
40,000,000.01	50,000,000.00	17.5%	25%	35%
50,000,000.01	100,000,000.00	25%	35%	50%
100,000,000.01	250,000,000.00	35%	50%	75%

Loans over Ptas 250,000,000 or those comprising more than 1% of the pool may be analysed individually.

This adjustment is unusual in that it is not multiplied by the benchmark credit enhancement number for the relevant loan. Instead, it is multiplied by the default frequency of the loan. A mortgage secured on a property that is valued at 25,000,000 pesetas in Madrid, and which happens to have a default frequency of 9%, according to *Table 5*, would therefore receive a Property valuation adjustment of 2.5% * 9% = 0.23%

3.4.3 Loan Purpose

Second homes and investment properties attract CEFs as indicated in *Table 6*. This adjustment is based on a number of factors:

- The lower incentive to maintain payments. A default will not necessarily lead to the loss of the borrower's own residence. This is especially true if the owner of the second home or investor property is not a Spanish resident.
- The risks of difficulties in removing tenants from a property, or of selling with tenants still in residence.
- The potential for a reduction in the value of a property as a result of poor maintenance or damage.

Table 6

Factor Adjustment	Property Usage
Up To 50%	Investor Property
Up To 50%	Second Home
No Adjustment	Owner Occupied Property

These factors assume that only a relatively small proportion of the portfolio is let. For securitisation of let portfolios, Moody's analysis would also include the extent and stability of rental income together with a review of the circumstances in which a lender could take control of these cashflows.

3.4.4 Employment Status

Self-employed individuals have an additional degree of payment risk versus the general population. Their incomes can fluctuate substantially based on the general economic environment and the success of their business. Moody's therefore assigns a CEF of approximately +20%.

Employees of small businesses (4 or fewer employees), temporary workers, directors, and those with a substantial equity stake in their employers are also considered self-employed for this purpose. Moody's typically reviews each originators definition of self employed borrowers, and adjusts its CEF accordingly.

Civil servants, known as *Funcionarios*, qualify for employment by passing a series of required eliminatory tests called *Oposiciones*. There are *Oposiciones* for virtually every state post and their degree of difficulty varies according to the desirability of the employment.

Once these exams are passed, an individual will be assigned a State post. These assignments are secured by the State, and are traditionally offered for a duration equal to the individual's employment life until retirement. This provides an added income stability, which Moody's has reflected with CEFs of up to -20%.

3.4.5 Debt To Income Ratio

Table 7

DEBT TO INCOME RATIO	< 20%	20% - 30%	30% - 40%	> 40%
CEF	-0.10	0.00	0.10	0.25

The debt to income ratio is the ratio of a borrower's yearly net income to yearly original loan quota. This ratio is one of the prime determinants of relative default frequency. Moody's typically calculates the relevant net income as the contractually committed income of the primary mortgage obligor.

Very often the Spanish mortgage market requires mortgage loans to be backed by some sort of guarantee. This is more readily seen in non-standard mortgages.[3] The guarantees serve to intrinsically enhance the debt to income ratio. Should an obligor default on his/her credit obligations, the guarantor will be notified and will share the responsibility for the timely payment of amounts due under the loan.

The most common type of guarantee is a guarantor signature or an additional guarantee over an existing property. Additional types of guarantees may be a second mortgage on an existing property, or salary deposits within a financial entity.

Guarantor signatures can provide an extra benefit for the deal though this can be offset by the fact that guarantees are most often sought when the primary borrower is perceived to be risky. It is quite normal in Spanish mortgage loans for a financial entity to request a guarantor. A guarantor will guarantee an amount equal to the overall amount of the loan plus unpaid interest and any additional costs that could be linked to the transaction.

3 Non-standard mortgages refer to those mortgages that for any particular reason may differ from a standard benchmark loan, or those that carry any additional risk.

3.4.6 House Price Changes Since Origination

Moody's examines the seasoning of the pool to assess the extent of any change in house prices since the loans were originated. Moody's calculates the average percentage change in the value of the several indices between the date of origination and the evaluation of the pool. This factor often takes the form of an adjustment to the default severity of the loans in the portfolio, but not the frequency of default.

The effect of house price declines is not applied if the benchmark credit enhancement number of a loan is less than 2% minimum. Similarly, increases in house prices may not reduce the sum of the benchmark credit enhancement number and this adjustment below 2%. In addition, Moody's considers the sustainability of the current levels of house prices when evaluating a Spanish mortgage-backed security.

3.4.7 Seasoning

Moody's examines the seasoning of the pool to assess the value of any payment history available on borrowers. The analysis of payment history is very specific to the originator, servicer, and mortgage product. The results of this analysis also interact very closely with other benchmark adjustments. *Appendix 3* gives an overview of the most commonly applied methodology used by Moody's in this analysis.

3.4.8 Loan Maturity

Moody's applies the following CEFs to amortising mortgages according to the maturity of the loan at origination.

Under 15 years	-5%
15-20 years	Nil
Over 20 years	+5%

Bullet loans receive the +5% CEF regardless of loan maturity.

These factors reflect the fact that weaker borrowers are more likely to seek loan repayment profiles that require the lowest cash outlay per month. In addition, a borrower who initially defaults on a loan some time after a transaction is securitised will have amortised more of the loan if the repayment period is lower than average.

3.4.9 Interest Rate Type

Moody's benchmark portfolio assumes that payments are set with reference to an established floating rate, such as Mibor, Euribor, IRPH or CECA.

Fixed rate loans may offer borrowers protection against variation in their payment rate (even though Spanish borrowers are allowed to convert from fixed to floating rate with minimal penalties without repaying the loans). Moody's therefore applies a CEF of -25% to loans that are fixed for a period of at least 5 years from origination.

3.4.10 Product Type

Moody's considers product type to be a very important factor in assessing the risk of a mortgage loan. Therefore, this can be one of the largest adjustment to the benchmark credit enhancement figure.

The key factors in this analysis are normally:

- The extent to which the features of the product tend to attract more creditworthy or more risky borrowers.
- Whether the repayment profile of the product exposes the borrower to stress or payment shocks, to a greater or lesser extent than the benchmark pool product.
- The specific underwriting procedures.

Housing Type

Spanish residential dwellings can be of two types:

1. Residential properties acquired at market rates are called Vivienda Libre. Moody's benchmark loan assumes that the loans being originated are for the purpose of acquiring a Vivienda Libre.

2. Viviendas de protección oficial are state-subsidised housing. The Spanish Government facilitates access to housing for low-income families. State-subsidised housing programmes are implemented through agreements negotiated with the different institutions, and include interest subsidies for the borrower (ranging in size depending upon their annual income and the purchase price of the property), interest subsidies for the promoter, and additional subsidies on an individual basis.

If an originator wishes to include state subsidised housing in a portfolio, Moody's would typically review performance data for loans of this type granted by that originator as it is possible that the borrower's payment capacity may be more sensitive to unexpected circumstances (i.e. death or sickness of a family member, additional expenses, etc.) that they may not be able to cover with extra liquidity.

Mortgage Origination

Borrowers have several methods of obtaining mortgages in Spain:

— Directly

Borrowers may borrow from a financial institution on an individual basis.

— Through Promoters

Another form of mortgage origination is lending to Promoters (developers), whereby the Promoter presents the lender with a development plan and requests financing. The lender will then assess the project and, if it is acceptable, will draft a lending proposal, which typically will not be above 70% of the value of the construction completed at any time. The loan is then made to the promoter, and is disbursed in tranches as the associated stages of construction are completed. During that time, the promoter will market the properties, and potential buyers are required to make certain payments in advance, typically 30% of the purchase price. Once the development is completed and the sale takes place, the mortgage loan is surrogated from the developer to the buyers, generating a number of individual mortgage loans. The lenders have the right to reject any of the potential buyers presented to them by promoters, although they rarely do.

This form of origination is a widespread market practice, but lenders have experienced mixed results with their historical performance. Some have seen these loans perform better than their normal mortgage product, and claim that it is a result of borrowers having a record of payments at the time of subrogation and the appreciation of the properties from the onset of construction.

— Through APIs

Agentes de la Propiedad Inmobiliaria (APIs) are real estate agents whose main function is to intermediate professionally in real estate transactions. An API buys and sells properties (residential, and commercial); appraises the value of the property; advises the counterparties in the transaction on legal and market issues; and finally determines an accurate price value. Every time the API mediates in a transaction he/she receives a commission fee. Moody's believes that this practice can result in additional risk if the loans being originated are quantity-driven instead of quality-driven (i.e. the more loans an API originates the higher the commission he/she will receive). All loans originated through APIs are carefully analysed and the underwriting process is thoroughly studied, and a CEF considered where appropriate.

3.4.11 Data On Previously Securitised Deals

Moody's values performance data from lenders' previous mortgage originations very highly. Although the loan-by-loan model provides an indication of the relative strength of one pool vs. another, it cannot adjust for all of the factors relevant to the credit strength of mortgage portfolios. Moody's therefore gives considerable value to data, which is specific to the originator undertaking a securitisation.

This data can be found in two possible ways:

— By Analysing the Performance of Previously Securitised Deals

When looking at previous transactions, Moody's determines whether the characteristics of the loans in the old deal are similar to those of the new

deal. Should the characteristics of the loans be similar from one pool to the other, Moody's will adjust the overall credit enhancement figure according to the strength of the old transaction.

The monitoring of prior transactions is typically conducted each quarter or semester (depending on the bond's payment dates), following the receipt of the monitoring report for those transactions.

While data from old deals from the same originator is most valuable, Moody's also compares data across originators.

— *By Looking at the Performance of the Entire Pool of Mortgage Loans from that Originator.*

When analysing a whole pool of mortgages, the most valuable data is static pool data, where the performance of a bucket of loans is tracked throughout its life at regular intervals (see table below).

A static pool assists Moody's in understanding the timepath of losses and prevents changes in the lender's origination volumes from distorting the analysis. Static pool data can also provide comfort that new loans are performing at the same level as previous originations by comparing the arrears of the new and the old loans after they have been outstanding for a few months.

Table 8

Arrears Static Pool Information

Arrears Data (As a % of Orig Balance)

Loans Originated In	1992	1993	1994	1995	1996	1997	1998	1999	2000
1992	—	—	—	—	—	—	—	—	—
1993		—	—	—	—	—	—	—	—
1994			—	—	—	—	—	—	—
1995				—	—	—	—	—	—
1996					—	—	—	—	—
1997						—	—	—	—
1998							—	—	—
1999								—	—
2000									—

Moody's can also review data where all outstanding loans are aggregated together. Thus, Moody's will look at losses and arrears from an entire book of mortgage data not broken out by period of origination. However, originators who are unable to provide either static pool data or a convincing comparison with prior transactions will typically require greater enhancement levels to achieve any given rating level.

3.4.12 Special Features

Each individual pool of loans may have particular characteristics that require consideration in the analysis. These characteristics are often targeted to attract borrowers. Teaser interest rates, limitation of quotas to be paid, flexibility of quota payments during the first years of the loan, interest rate caps, etc., all make the loans very attractive to borrowers.

Moody's analyses these characteristics by modelling the impact of each event on the payment schedule of the loans and by stressing their effect based on different economic scenarios.

4. STRUCTURAL ANALYSIS

Structural adjustments are made on the basis of the structural characteristics of each transaction. The main objective of the structural analysis is to determine the possible structural risks that a transaction may have and to assess the possible impact that these risks have upon the desired rating. Furthermore, structural analysis refers to the degree to which the transaction is structured so that investors will receive payments as promised.

Moody's makes adjustments based on structural features that differ from the standard structure and that may affect the payment schedule to investors. Some of the structural features that are analysed on a regular basis are the absence of a basis swap to cover possible interest rate risks, and particular structural characteristics that may include the reset period dates, or any yield maintenance agreements.

Key Issues in Structural Risk

In assessing structural risk Moody's considers the following issues:

- Whether the amount of credit enhancement is sufficient for the desired rating.
- The existence of any limitations or "carve outs" that restrict the use of particular forms of support to certain risks and any correlation between the supply of and the need for support.
- Whether the structure introduces any additional risks not considered in the previous collateral analysis. There may, for example, be co-mingling risk involved, which is a delay in the transference of funds from the servicer's to the issuer's bank account(s).
- The other forms of structural support available, such as the servicing function, or the availability of sufficient liquidity within the structure to allow for timely payments to investors.
- The interrelationship between the parts of the structure and the extent to which a failure in any one element could lead to a series of additional risks. One example is the credit loss that could be caused by an interruption of the servicing function.

The Distinction Between External and Internal Mechanisms

Moody's often distinguishes between "External" and "Internal" support mechanisms. The former is support provided by a party other than the issuer of the mortgage-backed security. It is vulnerable both to the credit strength and operational capacity of the provider (i.e. the provider's ability to perform) and to the terms under which such support is provided (i.e. the extent of the obligation to perform). Moody's analysis therefore focuses on the credit strength of the provider and the precise terms of any contractual obligations. External support may link the rating of a mortgage-backed security to that of the support provider as outlined in the Introductory Section, entitled "The Expected Value Approach". Typical examples of external support include insurance policies, swap agreements, external liquidity lines and the servicing function.

Internal support includes overcollateralisation, and senior/subordinate structures. The availability of internal support is often linked to performance of the underlying mortgage assets. The credit ratings of internally enhanced structures may therefore be more dependent on the performance of the collateral than those that rely on external support.

4.1 Senior/Subordinate Structures

A number of different structures for Spanish MBS have been employed to date. The most common mortgage securitisation structure in Spain, however, consists of a senior subordinated bond with a reserve fund. The first layer of protection is spread in the transaction. The second layer of protection for investors is the reserve fund and the third layer is the series B bond.

Moody's analysis of Senior Subordinate transactions centers on the allocation of cashflows to each set of investors. While this analysis is complex, it is one of the most crucial elements in determining the relative credit strength of mortgage-backed structures.

One key element is whether the interest, as well as the principal, payable to investors in the junior securities is subordinated to payments due to senior note holders. A related issue is

whether principal losses can accrue within the structure so that the mortgage and other assets of the issuer are less than the principal balance of the senior and junior liabilities without interest payments to junior debtors ceasing.

Senior Subordinate structures often incorporate tranches of mezzanine debt that are rated by Moody's. The task is to determine the size of the senior and mezzanine pieces, given the size of the junior notes or other enhancement. Moody's looks at both the frequency and severity of losses of each tranche of debt, by matching the expected magnitude and variance of collateral and other losses with the ratings desired on the various tranches. The target loss levels for each rating category were developed from data collected for Moody's most recent default study showing the default probabilities and severities of instruments rated on each rating category.

The various sources of credit support often have different degrees of subordination. Interest on the subordinated loans, frequently provided by issuers to fund reserve accounts, is often more deeply subordinated than that payable on mezzanine debt. However, it is important to note that interest subordination simply transfers risk between the various classes of security. A deeply subordinated mezzanine tranche will require more credit enhancement to achieve any given rating itself.

4.2 Spread Valuation And Basis Risk

Spread valuation is becoming increasingly important in rating MBS transactions, as spread income now accounts for a substantial share of the total credit enhancement in many recent transactions. It is particularly important in rating the subordinated tranches of such structures.

Spread arises from the difference between the income an issuer earns on its assets (principally mortgage PH's and any cash deposits), and its costs (interest payable on the BTHs and other expenses, such as the Gestora fee).

In evaluating spread investors may consider the following. Spread can be captured in full over the life of the transaction in which case the timing of losses is not exceptionally significant. However, spread is usually utilised purely on an ongoing basis so that if it is not needed in a particular period it is released back to the originator. In this case, the timing of losses is crucial as losses may occur later in the life of the transaction when the amount of spread available is reduced. Senior/subordinate MBS do, however, typically trap spread to cover previous losses. The complexity of the analysis depends on whether the spread is fixed or may vary, and involves, among other things, an analysis of the timing of losses, the range of margins on the assets and prepayments.

- *Margin Risk:* Most Spanish MBS pay 3-month Euribor plus a margin on their notes. The average margin payable frequently increases over time, as the lower margin senior notes typically amortise faster than the junior classes. The margins payable to investors also often increase after a pre-set date compounding this effect.
- *Prepayment Risk:* Prepayments of principal reduce the balance of the portfolio on which spread is earned. Mortgage losses have a similar effect. This is particularly important given the possibility that prepayments may remove the better quality loans from the portfolio, as by definition these borrowers must either have surplus cash, a replacement borrower, or equity in the property in order to prepay.
- There may be substantial *Basis Risks* between the Euribor rate payable to investors and the rate charged to mortgage borrowers, as discussed in the "Unswapped Transactions" section.

Moody's evaluates an issuer's spread income over a range of scenarios including high prepayments, delayed losses, and the amortisation of the higher yielding assets. Moody's also allows for increases in the various ongoing costs payable by an issuer, (such as the management company fees, originator fees).

4.3 Unswapped Transactions

Most of the Spanish mortgage-backed transactions that are securitised do not have a basis swap. Therefore, the structure is exposed to a degree of interest rate risks that are not found in most other European RMBS markets. In most unswapped transactions the reference rate earned on the mortgage assets is 12-month Euribor, while the liabilities pay 3-month Euribor.

Although Moody's believes that substantial interest rate mismatches between Euribor and Mibor are likely to be relatively short-lived, these mismatches do expose the structures to both liquidity risks and credit risks. As a result these transactions require additional credit enhancement compared to transactions where this risk is passed to swap counterparties. The magnitude of this adjustment is a function of the distribution of the reset dates and indexes of the assets and liabilities. In most transactions to date, this additional credit enhancement supporting the Aaa notes has typically amounted to 1%-2% of the mortgage pool depending on the distribution of mortgage reset dates relative to the reset dates on the liabilities.

4.4 Co-Mingling Risk

Co-mingling risk occurs when funds owed to investors become intermingled with funds from another party involved in the transaction. In most cash flow structures, there is a lag between the time a servicer receives payments from obligors and the time when the funds are paid. During this lag, funds may be co-mingled with other funds from the servicer, in certain structures. This risk can also occur if all of the mortgages or loans of an originator make payments into a common account, and there are any delays in transferring cash flows due to the issuer into its own bank account. If the servicer becomes insolvent, investors are then at risk for the amount that has been paid to the servicer. It also becomes very difficult to determine the ownership and source of the co-mingled funds.

In rating transactions, Moody's considers both the magnitude of any co-mingling risk, and also the ratings of the parties whose default would be required for a loss to occur.

4.5 Other Sources of Structural Risks and Support

4.5.1 Liquidity

Liquidity support protects investors from temporary delays or interruptions in the cashflows from the collateral assets. One source of such delays is the proportion of mortgage borrowers that are in arrears with their monthly payments at any given time. Some of these will eventually enter the possession and sale process. The insolvency of the servicer is the other major liquidity risk in MBS.

Certain transactions may use mortgage principal receipts to fund shortfalls of interest due to investors. While this is a powerful means of offsetting liquidity pressure, it may reduce the degree of interest subordination on junior notes if it permits the payment of junior interest that would otherwise cease. Similarly, liquidity drawings may allow spread that would otherwise be retained in a transaction to be released.

Many senior/subordinate structures are able to use the junior note interest to provide liquidity support for senior note interest. In addition, the cash reserve funds found in the newer structures that employ subordinate classes can normally be used to fund liquidity shortfalls as they occur. Spread income may also be a source of liquidity support as the proportion of the mortgage pool that must make payments of interest in order for debtholders to receive timely payment of interest is smaller.

Senior/subordinate structures without cash deposits or principal allocation features also typically require external liquidity support. Although it would usually be possible to access junior note interest payments, these are rarely sufficient in stressful environments.

4.5.2 Stepdowns of Credit Support

Many transactions allow for a reduction in the amount of credit enhancement once it has risen to a certain percentage of the outstanding pool amount. It is extremely important that mortgage-backed structures are protected at the tail end of their lives if Moody's highest

credit ratings are to be obtained. The option commonly available to the originator to repurchase the remaining 10% of a transaction is not an obligation and at that stage the pool may contain a large percentage of delinquent borrowers.

Moody's does not usually adjust its analysis if credit enhancement step-down occurs after it has reached twice its original percentage, and the step-down is pro rata with the then outstanding senior notes. This presupposes the existence of triggers relating to the total losses to date as well as the level of ongoing and expected delinquencies on the mortgage pool and also the rating of originator. Because spread income automatically declines with the balance of the portfolio, this may limit the decline in other aspects of the credit enhancement if additional support is not provided or if the triggers are not tightened.

The amortisation of the reserve fund is also triggered when it reaches a predetermined percentage of the outstanding balance of the pool of loans in many modern transactions. The tests governing this form of release are typically more stringent than those governing amortisation of the class B notes.

4.5.3 Servicing

The servicing role is critically important to the credit strength of Spanish MBS structures.

Three features dominate servicer analysis. First is the *skill of the servicer in managing the mortgage portfolio. Second, the probability of the servicer defaulting on its servicing obligations*, and the effect of both this and the loss of any other duties performed by the same company on the transaction's cashflows. Third is the *ability to find a replacement servicer* with a minimum of disruption.

The degree of skill exhibited by a servicer in managing a mortgage portfolio will affect the level of collateral losses on a portfolio. Moody's evaluation of this degree of management skill typically includes an on-site operational review of the company. The operational review incorporates an analysis of the efficiency of the software in place for the underwriting and collection process, the quality of the management and staff, the collection's policy and procedures of the institution, and other aspects such as the availability of backup systems. This factor is an additional reason why Moody's places considerable value on originator-specific performance data in deciding whether the results of the loan-by-loan model are applicable in any given securitisation.

A breakdown or delay in a transfer of the servicing function following the non-performance or insolvency of a servicer could substantially interrupt the collections procedure and increase the likelihood of collateral losses. In particular:

- Collateral performance will deteriorate as an insolvency will most likely result in a slackening in service quality, especially with respect to short-dated arrears loans.
- Cash flow may be trapped in the servicer to the extent that it has not been segregated and identified.
- If the servicer is also the originator, the value of the cure or purchase obligation for breaches of representations and warranties with regard to the mortgages will be severely diminished.

Moody's believes that the likelihood of a servicer default may, in some cases, be correlated with poor performance on the mortgage collateral. In these circumstances, a replacement servicing fee may quickly outstrip the initial cost of servicing the loans if the new servicer was not contractually precommitted, especially if the remaining balance on the mortgage portfolio is small. A replacement servicer that is not contractually precommitted is also less likely to have a prearranged procedure for the transfer of a particular mortgage book.

Moody's therefore assumes that a strong service, or other form of support, will need to be in place if the security is to qualify for Moody's highest ratings. This may take the form of support from a third party organisation (a backup servicer), or additional liquidity and credit enhancement.

4.6 Rating of Originators

As the credit strength of an originator effects a transaction in many different ways (not only through commingling and servicer default risks as discussed above, but also through factors such as the loss of representation and warranties), the importance of the rating of the servicer differs between transactions.

However, in general Moody's has found that this factor has added between zero and 2.5% to the overall level of enhancement supporting the Aaa notes. Moody's will not credit nor penalise an unrated originator as long as the originator provides sufficient information, which enables the issuance and ongoing monitoring of an internal shadow rating. The shadow rating provides an estimation of the credit quality of the issuer itself.

Should an originator not be rated, and be unable to provide enough information to accurately assess its credit quality, Moody's will estimate the originator's internal shadow rating based on the publicly available information. As a result, Moody's will account for the possible uncertainty of the originator's credit quality when estimating the shadow rating, by penalising the deal moderately (i.e. perhaps increasing the final credit enhancement figure).

5. LEGAL ANALYSIS

According to Spanish legislation, every financial institution is permitted to assign to any investor its credit rights without the debtor's consent, unless there is an existing agreement to the contrary. In other words, a true sale does not require the notification of the debtor and the assignment does not demand any special form. Yet, the true sale will be liberatory for the debtor until he has notified the cession. It is also important to point out that every ceding entity is liable for the legitimacy of the ceded credit to the cession's recipient, but not for the debtor's solvency. In addition, the debtor is entitled to use against the cession's recipient the same exceptions used against the ceding entity.

For a cession to be cancelled from the balance of a credit entity, it has to be complete, unconditional, written, and without a repurchase agreement.

In the case of mortgage loans, the legislation has introduced the concept of the Mortgage Participation (PH). Under Spanish law, each PH represents a certain percentage of a single mortgage loan (generally 100%) for the entirety of its remaining life and grants to its holder the right to take executory action against the originators, and under certain circumstances, the right to pursue the mortgage debtor.

According to Spanish law, in order to issue a Participación Hipotecaria, the maximum legal loan size is 70% of the appraised value of the mortgaged property, or 80% if the purpose of the loan is to finance the acquisition or improvement of a dwelling. Additionally, the lender may require the borrower to extend the lien to other property if the value of the property decreases by more than 20%, or require the borrower to repay the portion of the loan necessary to decrease the loan in order to achieve the maximum LTV size.

5.1 Fondo De Titulización De Activos (FTAs)

An FTA is a closed heritage with no judiciary personality whatsoever. Its assets are mortgage loans, which are grouped in the judiciary figure of the Mortgage Participation, and its liabilities are the title bonds issued. Consequently, FTAs, whether consisting of mortgage loans (FTHs) or of any other kind of assets (FTAs) are represented by the Gestoras.

5.2 Asset Management Company (Gestoras)

Gestoras are somewhat similar to the trustee entity in English-speaking countries but with far more attributes. Its sole aim is the constitution, administration, and legal representation of FTAs as well as FTHs. They are thinly capitalised limited companies. Lately, and due to a peculiar development of the securitisation market in Spain, the Gestoras are assuming the function of structuring MBS and ABS transactions. Currently, there are eight Gestoras operating on the Spanish market.

5.3 Servicing

Unless an agreement exists to the contrary, the originator of the mortgage loans shall be their administrator, undertaking the usual role of the administrator. These duties include appeal and collection in the case of arrears of payment and/or insolvency, diligence responsibility, and the responsibility of informing the Gestora in case of arrears or other factors that may alter the quality of the issued bonds.

The subcontracting of the responsibilities taken on by the administrating entity is only possible if that subcontracting does not imply a larger cost to the fund, or an impairment of the services to be provided.

5.4 Subrogation and Novation Law

The March 1994 law provided borrowers with additional rights to modify the term and interest rate reference of their loan. The lender has the right to modify the terms of the loan (maturity, and or rate) through novation, or to reject the modifications and allow the borrower to negotiate better terms (although this includes only rate changes) with another lender to whom the originator must surrogate his prior lien (subrogation).

The aim of this law was to ensure that the existing fixed rate loans would benefit from reduction in market rates. The joint impact of the new law and a reduction on interest rates created in some cases, prepayment rates as high as 30% of existing MBS deals. However, the charged fees (ranging from 0.5% to 4%) could offset this increase in prepayment rates should a borrower decide to change his loan conditions.

APPENDIX I SUMMARY OF CREDIT ENHANCEMENT FACTORS

Investors should be aware that the factors presented in the following summary are only some of the factors contributing to any given rating:

1. BENCHMARK DERIVATION

Table 2
Benchmark Credit Support Aaa Level by LTV Bands

LTV % (<=)	55	60	65	70	75	80	85	90	100
FREQUENCY	6.75	6.75	7.50	8.25	9.25	10.50	13	16.90	23.50
BENCHMARK	2.2	2.61	3.39	4.19	5.15	6.30	8.29	11.44	17.22

2. HOUSE PRICE

Table 5
House Price Adjustments

		Adjustment According to Region		
House Price Bands (mn Ptas)		HIGH	AVG	LOW
0	12,000,000.00	0%	0%	0%
12,000,000.01	16,000,000.00	0%	0%	2.5%
16,000,000.01	20,000,000.00	0%	2.5%	7.5%
20,000,000.01	25,000,000.00	2.5%	7.5%	12.5%
25,000,000.01	30,000,000.00	7.5%	12.5%	17.5%
30,000,000.01	40,000,000.00	12.5%	17.5%	25%
40,000,000.01	50,000,000.00	17.5%	25%	35%
50,000,000.01	100,000,000.00	25%	35%	40%
100,000,000.01	250,000,000.00	35%	50%	75%

3. REGIONAL CONCENTRATION

Table 3
Benchmark Regional Mortgage Distribution

ANDALUCIA	14.0%
ARAGON	2.0%
ASTURIAS	2.5%
BALEARES	3.6%
CANARIAS	4.0%
CANTABRIA	1.0%
CASTILLA LEON	4.0%
CASTILLA LA MANCHA	3.4%
CATALUÑA	21.0%
CEUTA	0.5%
EXTREMADURA	1.5%
GALICIA	4.0%
MADRID	19.0%
MELILLA	0.5%
MURCIA	2.0%
NAVARRA	1.0%
VALENCIA	10.0%
PAIS VASCO	4.0%
LA RIOJA	2.0%

4. REGIONAL HOUSE PRICE CLASSIFICATION

High	Average	Low
BALEARES	ARAGON	ANDALUCIA
CATALUÑA	ASTURIAS	CASTILLA LA MANCHA
MADRID	CANARIAS	CEUTA
PAIS VASCO	CANTABRIA	C. VALENCIANA
	CASTILLA LEON	EXTREMADURA
	LA RIOJA	GALICIA
	NAVARRA	MELILLA
		MURCIA

5. LOAN USAGE

CEF	PROPERTY USAGE
UP TO 50%	INVESTOR PROPERTY
UP TO 50%	SECOND HOME
NO ADJUSTMENT	OWNER OCCUPIED PROPERTY

6. DEBT TO INCOME

INCOME MULTIPLE	< 20%	20% - 30%	30% - 40%	> 40%
CEF	-0.10	0.00	0.10	0.25

7. HOUSE PRICE CHANGES SINCE ORIGINATION

Average percentage change implied by the Ministry of Fomento * Average Frequency Assumption * Proportion of Pool affected / Average LTV

Repeated for each quarter's origination in each region.

Moody's also considers the sustainability of the current house prices.

8. SEASONING

Appendix 3 outlines one of the Seasoning Adjustments currently used by Moody's.

9. PRODUCT TYPE

Review of Originator Data Regarding (if included in the transaction):

- State Subsidised Housing
- Promotor Loans (Development)

10. INTEREST RATE TYPE

Fixed Rate Loans - 25% CEF (if fixed period >= 5 years)

12. LOAN MATURITY

Moody's applies the following CEFs to amortising mortgages according to the maturity of the loan at origination.

Under 15 years	-5%
15-20 years	Nil
Over 20 years	+5%

Bullet loans receive the +5% CEF regardless of loan maturity.

13. RATING COMMITTEE

The above factors form the basis for the quantitative considerations in the rating process. During the rating committee those factors and a number of additional qualitative and comparative factors are reviewed before the final rating is assigned.

APPENDIX II

AN EXAMPLE:
HOW TO OBTAIN A CREDIT ENHANCEMENT FIGURE

I. MODIFYING CERTAIN LOAN CHARACTERISTICS

	LOAN 1	LOAN 2	LOAN 3	LOAN 4	LOAN 5
APPRAISED VALUE	10,000,000	15,000,000	8,000,000	50,000,000	22,000,000 ptas
LOAN	5,500,000	13,000,000	5,000,000	40,000,000	15,000,000 ptas
LTV LEVEL	55%	86.6%	62.5%	80.0%	68.2%
REGION	Madrid	Galicia	Pais Vasco	Asturias	Andalucia
TYPE	Floating	Floating	Floating	Fixed	Floating
LOAN USAGE	Owner Occupied	Owner Occupied	Investor Property	Owner Occupied	Investor Property
ARREARS DATA	yes	yes	yes	yes	yes
DEBT TO INCOME	20%	20%	20%	30%	25%
EMPLOYMENT	Self employed	Regular employed	Regular Employed	Self Employed	Estate Employed
SEASONING	1 yr	1.2 yrs	5 yrs	8 mo	1 yr
HOUSE TYPE	Vivienda Libre	Vivienda Libre	Vivienda Libre	Vivienda Libre	Vivienda Libre
ORIGINATION	Directly	Directly	Directly	Directly	Directly
MATURITY	15 yrs	17 yrs	15 yrs	18 yrs	20 yrs

	LOAN 1	LOAN 2	LOAN 3	LOAN 4	LOAN 5
BENCHMARK CEF	2.20%	8.29%	2.61%	6.30%	4.03%
HOUSE PRICE	0	2.5%	0	25%	12.5%
REGION	High	Low	High	Average	Low
TYPE	0	0	0	-25%	0
LOAN USAGE	0	0	50%	0	50%
DEBT TO INCOME	0	0	0	0	0
EMPLOYMENT	+20%	0	0	+20%	-20%
SEASONING	0	0	-10% cat 1 [1] -60% cat 2	0	0
HOUSE TYPE	0	0	0	0	0
ORIGINATION	0	0	0	0	0
MATURITY	0	0	0	0	0

1 "Cat" refers to Category as described in Appendix III - Seasoning methodology Adjustment

	LOAN 1	LOAN 2	LOAN 3	LOAN 4	LOAN 5
TOTAL CE for each loan	2.64%	8.68 %	3.13%	8.74%	6.25%

WEIGHTED AVERAGE CREDIT ENHANCEMENT

	LOAN 1	LOAN 2	LOAN 3	LOAN 4	LOAN 5

CE = 7.47 % =

= (7.01%) * (2.64%) + (16.56%) * (8.68%) + (6.37%) * (3.13%) + (50.96%) * (8.74%) + (19.11%) * (6.25%)

REGIONAL CONCENTRATION

REGIONAL CONCENTRATION	MADRID	GALICIA	PAIS VASCO	ASTURIAS	ANDALUCIA
BENCHMARK	19%	4%	4%	2.5%	14%
EXCESS	NA	10.29%	3.62%	45.12%	16.97%
ADJUSTMENT	0	10.29%*0.5%	3.62%*0.5%	45.12%*0.5%	16.97%*0.5%

ADJUSTMENT	0.05% + 0.02% + 0.23% + 0.08%

TOTAL TRANSACTION'S CE = 7.85 %

APPENDIX III SEASONING METHODOLOGY ADJUSTMENT

To the extent that this information is available from the servicer, Moody's analyses the seasoning and payment history of the borrowers in the pool to be securitised. While the results of this analysis are highly pool-specific, the most common methodology is presented below.

This adjustment does not follow the normal CEF pattern. Instead, the various contributors to the overall credit enhancement levels are categorised as described in the table below.

For category 2 adjustments, the number of months is the number of complete months since the loan was originated.

For category 1 adjustments, the number of months referred to in the table is the number of complete months either since (1) the loan was originated or (2) the loan was last 30 days in arrears, whichever figure is lower.

CATEGORY 1	Benchmark, Property Value, Geographic Distribution, House Price Changes, Property Use
CATEGORY 2	Loan Purpose, Income Multiple, Employment Status, Certain product Type Adjustments, Interest Rate Type

MONTHS	1	2	3	4	5	6
CATEGORY 1	+20%	+10%	+10%	+5%	+5%	+5%
CATEGORY 2	+50%	+25%	+20%	+15%	+10%	+10%

A percentage reduction is then made for each of these adjustments as follows:

MONTHS	12-23	24-35	36-47	48-59	60+
CATEGORY 1	0%	-2.5%	-5%	-7.5%	-10%
CATEGORY 2	0%	-15%	-30%	-45%	-60%

Category 1 adjustments reflect the improvement in credit quality of the pool of mortgages due to the passage of time. Moody's does not recognise this improvement for those loans which are currently in arrears, and limits the benefit of seasoning to the number of months the loan was last 30 days in arrears.

Moody's believes that the features (CEFs) included in Category 2, are more time sensitive than Category 1 ones. This benefit, for its own nature applies regardless of payment history

Therefore, a loan with two years' performance history would receive a seasoning adjustment of -0.16% under a loan-by-loan analysis, if its benchmark were 7.07% and the only other adjustments were a property value adjustment of +94 bps and an income multiple result of 107 bps. This is calculated as:

CATEGORY 1:	Benchmark, and property value	(7.07% * 0.94%) * -2.5%	=	-0.0017 %
CATEGORY 2:	Income Multiple	(1.07% * -15%)	=	-0.16%

These calculations are only made for the purpose of determining the seasoning adjustment; the underlying factors themselves (benchmark, etc.) remain unaltered.

APPENDIX IV

BRIEF BACKGROUND TO THE SPANISH MORTGAGE MARKET

A. Legal Background of the Spanish Securitisation Market

- In August 1991, a law was passed reinforcing the *Participación Hipotecaria* (PH) as a true transfer of credit, enforceable in the event of an issuer's bankruptcy. 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 and, under certain circumstances, the right to pursue the mortgage debtor. The Bank of Spain gave the underlying mortgages off-balance sheet treatment once they were transferred via PHs. Following this reform, the first two Spanish structured deals came to the market, each using a different type of vehicle where the PHs were pooled together in a true structured transaction.

  Citibank launched the first transaction of this type. Citibank Titulización Hipotecas I consisted of a pool of variable rate residential mortgage loans, whose credit enhancement included a 10% guarantee to cover credit losses and backup support for basis risk, and a spread account. In addition, the transaction provided basis risk coverage, backup advancing, a Citibank España performance guarantee, and repurchase of PHs (mortgage shares) backed by defective loans. Since the concept of a *Fondo* had not yet been introduced (it was introduced in the second step of the legal reform) the transaction included the concept of a *Comunidad*. Citibank España passed through to the *Comunidad* interest and principal including the prepayments and recoveries it collected on the mortgage loans.
- In the second step of this reform, in July of 1992, the 19/1992 Securitisation Market Law introduced the concept of "FONDOS DE TITULIZACION HIPOTECARIA". The law requires that all PHs be deposited within a *Fondo* while all of the bonds be issued from a Fondo. The Fondo de Participaciones Hipotecarias is a closed fund that does not have any legal personality. It is constituted on its asset side by the PHs and on its liability side by the issued bonds, so that the net value of the Fund is always zero.

  This Law further introduced the concept of the SOCIEDAD GESTORA, the Management Company. The *Sociedades Gestoras* require the authorisation of the Ministro de Economía y Hacienda for their creation. They are the legal representative of the Fondos and take care of the administrative tasks that the *Fondos* may require. The Gestoras are also able to manage several *Fondos* simultaneously and are responsible for the constitution of the *Fondos*. The *Fondos*' constitution has to be approved and verified by the CNMV (Comisión Nacional del Mercado de Valores) as specified in Law 24/1988.

There are currently eight management companies within the Spanish market.[1]

SPANISH GESTORAS

EUROPEA DE TITULIZACION	GESTION DE ACTIVOS TITULIZADOS
TDA (TITULIZACION DE ACTIVOS)	AyT (AHORRO Y TITULIZACION)
GITSA	AdT (ASESORA DE TITULIZACION)
BSCH DE TITULIZACION	
GESTICAIXA	

- The third step of this reform, in 1998, resulted in the implementation of the Real Decreto 926/1998, which allows for other asset types to be securitised. Among others, the Royal Decree includes leasing transactions, mortgages issued to small and medium-sized companies and future receivables.

  The Fondos that can be created for this purpose are called FONDOS DE TITULIZACION DE ACTIVOS, or FTAs. The Royal Decree allows for open structures (those in which either the assets or the liabilities can be modified during the life of the *Fondo*), which in turn can develop short- and medium-term securitisations.

1 See "The Role of Gestoras in Spanish Securitization Transactions" *Moody's Investors Service*.

The highlight of the Royal Decree was that it allowed the possibility of all types of financial securities to be securitised even some future rights. The legislation explicitly mentions toll roads and leasing operations as feasible asset types for securitisation. Other future rights need to be approved by the Ministry of Economy and Finance after receiving a favourable review from the CNMV. Furthermore, the Royal Decree also allows for the *Fondos* to be able to issue both loans and bonds, with a minimum of 50% of the issuance to be done with bonds.

The Royal Decree's additional highlights are:

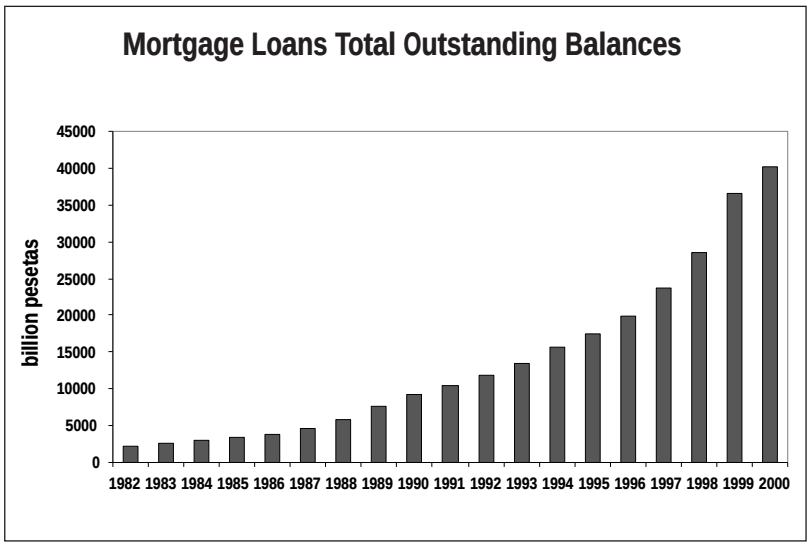
- The assignment of assets must be full and unconditional, yet nothing prevents the *Fondo* from having the same name as the originator of the assets.
- The asset-backed bonds need to be rated by a recognised rating agency.

B. BACKGROUND OF THE SPANISH MORTGAGE MARKET

Before the 1981 law, the Ley del Mercado Hipotecario (LMH; Law of the Mortgage Market), the Spanish mortgage market had significant structural inefficiencies and was relatively uncompetitive. The situation was a result of the market's historic development, with the *Cajas de Ahorro* (Regional Savings Banks) and the Banco Hipotecario de España (BHE; state-owned mortgage bank) as the only lenders.

The main lenders, the *Cajas*, were dependent on short-term deposits to fund their mortgage assets, which were largely fixed-rate long-term loans. This was a considerable constraint on their mortgaging activity, and led to volatility in the volume of loans originated as well as interest rate and term mismatches between assets and liabilities. The *Cajas* were limited to operating within their respective regions until 1988, which made it impossible for them to compete among themselves. As private banks, they were also subject to the Bank of Spain's compulsory reserve requirements, which further limited the availability of funds. Issuance of the only available mortgage security, the *Cédula Hipotecaria*, was limited to BHE in order to fund *Vivienda de Protección* Oficial (VPO; government-subsidised housing).

This made it almost impossible for any other entity to enter the market, because financing was not available for this type of lending. For borrowers, the restriction of a maximum of 50% loan to value meant they needed to find additional financing (usually short-term), to supplement the downpayment and the mortgage loan.



The objective of the LMH was to improve the mortgage market by stimulating competition, widening its resources, and improving management. Since the 1981 restructuring, and some subsequent reforms, the Spanish mortgage market has experienced high and sustained growth (see graph), with arrears levels decreasing to less than 1% of the total mortgage pool.

THE HOUSING MARKET

The housing market in Spain has been experiencing record years in terms of built residences, purchase transactions and prices. The reasons for this growth were as follows:

(i) An excess of demand over supply.

(ii) Increased costs in both construction and land purchases.

(iii) Favourable economic conditions, which improve future income and labour expectations, both of which readily affect the decision to buy a property.

(iv) Nevertheless, the most important characteristic influencing the increased demand for home ownership was the decrease in interest rates.

Mortgage loans outstanding balances as of December 2000 account for 250,736 mill EUROS. Growth has reached figures of about 19.64% in December 2000, as compared with lowest figures ever of 11% in 1996. Average loan values have grown steadily to values close to 11.7 million pesetas.

THE LENDERS

The favourable evolution of the mortgage market is causing increased competition among lenders, which are offering very aggressive interest rates in order to capture new clients. There are five main types of financial entities within the Spanish Market: *Cajas de Ahorro*, Private Banks, *Cooperativas de Crédito*, *Establecimientos Financieros de Crédito* and the ICO.

The *Cajas de Ahorro* have been the traditional mortgage lenders in Spain. They are non-profit institutions with no equity shareholders, but have over time developed operations, which are very similar to those of the banks. The focus of the *Cajas de Ahorro* has traditionally been consumer credit and mortgage lending, in contrast to the banks that service the corporate market. Compared to the banks, the *Cajas* have high operational costs because of their higher share of retail deposits. The extensive branch networks and long-standing customer relationships give them a competitive advantage in their regions. Although the *Cajas* are still the leaders in the mortgage market, they have been losing market share to the private banks and to *Sociedades de Crédito Hipotecario* (SCH).

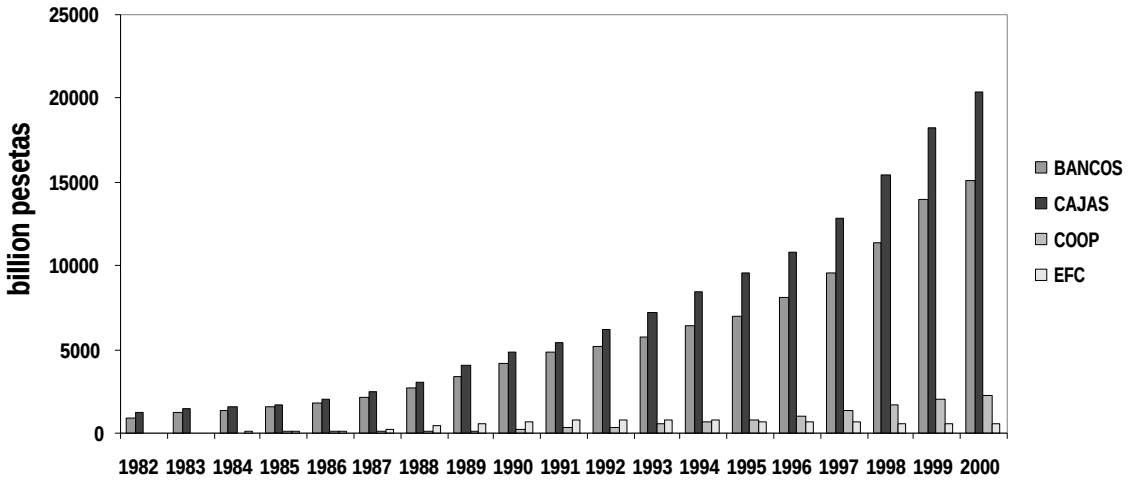
The *Private Banks* have traditionally been the most important institutions in the banking system. There are a large number of private banks, including foreign banks, but there is a high concentration of banking activity, increased by some mergers in the past years among the four largest institutions (Central Hispano, Banco Santander, and Banesto, and Banco Bilbao Vizcaya and Argentaria).

The *Cooperativas de Crédito* are financial entities whose function is that of a co-operative and that of a deposit entity. Therefore they are regulated as banking entities and as co-operatives.

There are two types of *Cooperativas de Crédito: Cajas Rurales* or *Cooperativas de Crédito Agrícola*, and *Cooperativas de Crédito* with an industrial or urban character. The former finance all the activities related to the rural sector, while the latter finance those activities targeted at a particular professional sector.

The *Establecimientos Financieros de Crédito* (EFCs) are specialised mortgage institutions created in 1994 by the LMH. Since then, many of its entities have been incorporated, all of them as subsidiaries of private banks or insurance companies. Their main obstacle has been access to financing. Their high cost structure is a result of not being able to access short-term funds (deposits or inter-bank market), high capital requirements (due to risk concentration in financing developments, their main activity), and dependence on other entities for the origination and servicing of branch networks (mainly their parent companies). Although they are not deposit-taking institutions, they are regulated as banking entities. But the EFCs have made noteworthy contributions to the market, notably their higher efficiency with regard to the origination process, characterised by a shorter evaluation period and quicker lending decisions. Their market share has grown very rapidly.

The *ICO*, (Instituto de Crédito Oficial) was created in 1971. Its main purpose is to lend long-term funds that will finance the development of productive investments, as well as to sustain and promote the economic activities that will contribute to the growth and improvement of the national wealth.



Source: AHE

LEGAL ISSUES

The *foreclosure process* is relatively unproblematic in Spain and simpler than that of some other European countries. However, a crowded judicial system often delays the process, which takes between one and five years, with an average of three years, depending on the region. In trying to speed up the process, the State has just introduced a new LAW 1/2000, which will speed the foreclosure process by the constitution of a unique foreclosure auction (rather than the previous three).

In addition, the Law has introduced the *procedimiento notarial*, which involves a notary as opposed to a court presided over by a judge. Its effectiveness is limited to cases where the borrower does not oppose the foreclosure, due to the fact that only a court can order an eviction. As a result, the *procedimiento notarial* has rarely been used. The cost of the foreclosure process includes a number of fixed amounts, making it relatively more expensive for smaller properties and more expensive in general.

The law includes the option for mortgage lenders to request additional security from the borrower when the market value of the underlying property falls below 20% of its appraised value. This option, which has to be contractually agreed upon, and which mortgage-backed security holders can demand the lender to enforce, is rarely used in Spain.

C. MORTGAGE ENFORCEMENT PROCEDURES

In Spain there are basically four procedures in the recovery of the mortgage investment:

1) *A Declaratory Trial* can be held, in which a judge will declare the right of the financial entity to collect the debt. The judge will order the debtor to payment, and declare the right of the entity to sell the mortgaged dwelling in execution of the sentence.
2) *An Executive Trial.* In this case, the judge will be asked to order the payment of the debt, and once that has been carried out, the entity will proceed to realise the mortgaged dwelling. This judiciary procedure can be used whenever there is any doubt as to whether it will be possible to cash the credits by simply selling the mortgaged dwelling. This means that it is possible for entity to seize any other goods belonging to the debtor in order to fully regain the owed amount.
3) *Summary Judiciary Procedure.* This procedure requires the involved parties to have fixed a price for the estate's auction in the mortgage title deed, and the debtor to have a fixed address to receive requirements and notifications. The sequential stages are: lawsuit, requirement of the payment to the debtor, notification of the existence of the procedure to further debtors, auction of the dwelling, payment to the Creditor, and transfer of the dwelling.

4) *Extrajudicial Procedure.* This is similar to the summary judiciary procedure but involves a notary instead of a judge. This process is currently obsolete since possession is not guaranteed upon the transfer of property; therefore another procedure may be necessary.

Concerning the recovery period, taking as a reference point the most common procedure (3), the average length of time between the initiation of the lawsuit and the register inscription is 25 months. It must, however, be taken into consideration that the duration of legal procedures in Spain very much depends on the corresponding court's current workload.

- *Sale of the Dwelling Process*

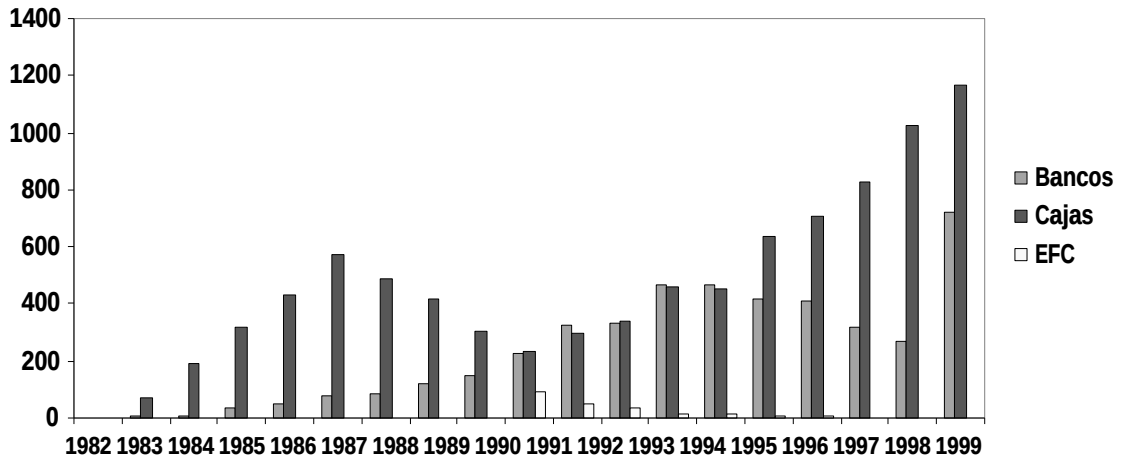
When a borrower will not or cannot pay, pursuant to the legal procedures mentioned previously, the financial entity then requests the court's permission to seize the mortgaged dwelling. The judge then orders one single auction to be held. In this auction the property is released at 70% of the title deed price, which is very similar to the original valuation. If no participant is willing to obtain the property with this value, the lowest possible limit will be 50% of the title deed price.

In Spanish auctions it is customary to encounter the auctioneer. The task of the auctioneer consists of selling the object put up for auction at the best possible price, in order then to resell it afterwards. This is achieved by agreeing the price between the auctioneers before the auction. Moody's considers that the privatisation of judiciary auctions will introduce agility, security, and transparency to the sale process.

FUNDING

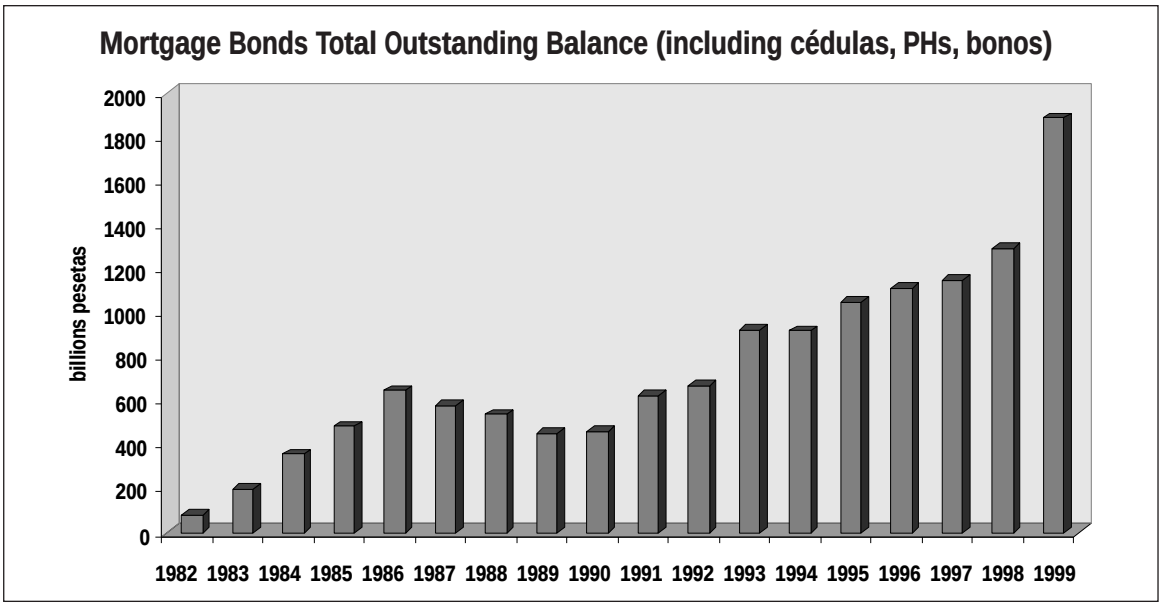
One of the objectives of the LMH was to widen the financial resources available to the mortgage market.

Mortgage Bonds Outstanding Balance (including cédulas, PHs, bonos)



Source: AHE

The LMH created three types of securities that are available to mortgage lenders to provide medium and long-term financing; Cédulas Hipotecarias, Bonos Hipotecarios and Participaciones Hipotecarias. Of the three instruments, the Cédulas were initially widely used. However, subsequent legislation eliminated its favourable tax treatment in 1985, which made outstanding volumes decline sharply (see graph). From 1992, the issuance of *Participaciones Hipotecarias* increased significantly because of two factors: (1) the introduction of the Royal Decree that regulates securitisation funds and (2) the financial entities need to obtain liquidity.



Cédulas Hipotecarias[2] are securities guaranteed by all of the mortgage loans in the portfolio of the issuing entity, and ultimately by all the assets of the issuer. Holders of *Cédulas* are secured lenders of the issuer and, in the event of a bankruptcy, their claim ranks only after taxes and salaries (and *Bonos*, as seen below). The *Cédulas* have been the only mortgage security widely used. Their use as a funding source increased sharply up until 1986, when regulatory changes made them relatively unattractive. Since then, outstanding volumes have dropped as sharply as they had risen.

Bonos Hipotecarios are securities backed by a specific pool of mortgage loans. Holders of these securities are secured lenders of the issuer, but their security is limited to a specific pool of loans, and their claim ranks ahead of that of *Cédulas* holders. Because of registration and other legal requirements, issuance costs are very high. Only one issue has ever come to market, which was issued by *Caja Postal* (state-owned postal savings bank), at a time when, due to legislative issues, it was unable to issue *Cédulas*.

The Participación Hipotecaria (PH) is a security backed by a specific mortgage loan. It is effectively a transfer of a stated percentage of the loan for its remaining life, and therefore carries the credit risk of the borrower. The PH was a very advanced concept in 1981, when no other European country had any similar instrument to facilitate the transfer of mortgages. However, further steps that were needed to develop mortgage-backed structured securities were only taken ten years later.

2 See “Spanish Cédulas Hipotecarias - Moody’s Analytical Approach”, April 1999, *Moody’s Investors Service*.

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