

European Structured Finance  
New Issue

Spain / RMBS

## Foncaixa Hipotecario 4, Fondo de Titulización

### Ratings

Class	Amount (million)	Final Legal Maturity	Rating	CE
A	€ 583.2	Dec 2031	AAA	4.5%
B	€ 16.8	Dec 2031	A	1.7%

### Analysts

Natalia Bourin  
+44 (0) 20 7417 6321  
natalia.bourin@fitchratings.com

Stuart Jennings  
+44 (0) 20 7417 6271  
stuart.jennings@fitchratings.com

### Surveillance

Samarah Edds  
+44 (0) 20 7417 6331  
sf\_surveillance@fitchratings.com

### ■ Summary

This transaction is a securitisation of residential mortgages originated and located in Spain. Fitch has assigned ratings to the notes to be issued by Foncaixa Hipotecario 4, Fondo de Titulización Hipotecaria (Foncaixa H4) as indicated at left.

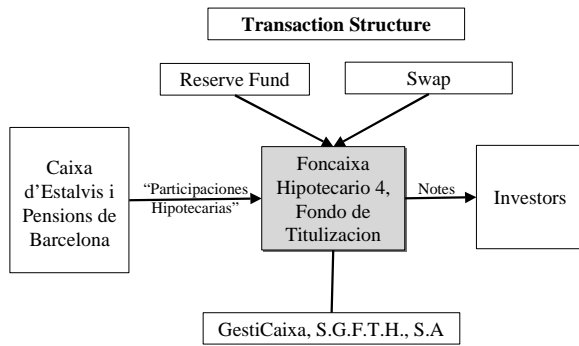
Foncaixa H4 is regulated by Law 19/1992 (the Spanish Securitisation Law) in Spain. The sole purpose of Foncaixa H4 (note issuer) is to transfer the mortgage loan participations acquired from the participation issuer, Caixa d'Estalvis i Pensions de Barcelona ('la Caixa', LC, rated 'AA-/F1+' by Fitch), into fixed-income securities. The notes will ultimately be backed by a pool of residential mortgages originated by LC in Spain. LC is the parent of Spain's third largest banking group, ranked by total assets as at May 2001, offering all the retail and wholesale financial services of a commercial bank on a national scale.

The participations will be subscribed by GestiCaixa, S.G.F.T.H., S.A. (Sociedad Gestora) on behalf of Foncaixa H4. The Sociedad Gestora is a corporation whose sole purpose is managing mortgage asset-backed funds in accordance with the provisions of the previously mentioned law.

The ratings are based on the quality of the collateral, available credit enhancement, adequate underwriting, and servicing of the mortgage loans and the interest rate swap provided by LC, the Sociedad Gestora's administering capabilities, and the sound financial and legal structures. Credit enhancement for the class A notes, totalling 4.5%, will be provided by the subordinated class B notes (2.8%) and the reserve fund (1.7%). Credit enhancement for the class B notes, totalling 1.7%, will be provided by the reserve fund.

In accordance with the priority of payments described in the Financial Structure section on page 2, interest and principal to the class A and B notes will be paid on a quarterly basis, commencing 15 March 2002. The class A and B notes will receive interest payments based on the three-month Euro Interbank Offered Rate (EURIBOR) plus a margin. The class A and class B notes will be redeemed sequentially in line with the principal amortisation of the collateral.

To determine appropriate levels of credit enhancement, Fitch analysed the collateral using a loan-by-loan mortgage default model (see Appendix 1). Fitch also modelled the cash flow contribution from excess spread under stressed scenarios determined from its default model. The cash flow test showed that each class of rated notes, taking available credit enhancement into account, can withstand loan losses at a level corresponding to the related stress scenario without incurring any principal loss or interest shortfall.



## ■ Credit committee highlights

- Well seasoned pool.
- Gross excess spread guaranteed at 0.65% by a total return swap.
- Further drawdowns are permissible, ranking *pari passu* with the initial advances backing the portfolio, thereby potentially increasing loss severity. This risk, however, pertains only to loans representing a maximum of 55% of the portfolio, and is accounted for in the calculation of credit enhancement. LC's history of further drawdowns has shown that these tend to remain at a low level.
- The drawdown facility could expose the issuer to "redraw risk", in case LC is unable to fund redraws. However, Spanish securitisation legislation specifies that assets are transferred with all rights but no obligations. No obligation to fund the drawdown would therefore pass to the issuer.
- Borrowers may apply for a forbearance period (or payment holiday) of up to 2 years, during which only interest – and not principal – is paid. However, this is subject to LC's approval.

## ■ Financial Structure

The mortgage loans will be serviced by LC. The Sociedad Gestora will perform administrative functions for Foncaixa H4. To protect investors in the event that LC is not able to continue performing the mortgage servicing functions adequately, the Sociedad Gestora is able to appoint a replacement administration company, in accordance with Law 19/1992, provided rating requirements are met.

All principal payments received monthly by LC will be passed daily to the collections account, which will be maintained at LC in the name of Foncaixa H4. The amounts deposited in the collections account will be kept in cash and will receive a guaranteed interest

rate equal to EURIBOR flat. In the event of a downgrade of LC below 'F1' a guarantee from a company meeting rating requirements must be provided within 30 days to cover LC's obligations with respect to the collections account. If this is not possible, a replacement meeting the rating agency requirements must be appointed by the Sociedad Gestora.

Interest payments to the class A and B noteholders will be made quarterly in arrears, commencing 15 March 2001. The class A and B notes will receive interest payments based on the three-month EURIBOR plus a margin.

## Priority of Payments

On each distribution date, the priority of payments will be as follows:

1. Expenses and taxes due by Foncaixa H4, including the Administration fee to the Sociedad Gestora and the fee to the paying agent.
2. Amounts due to the swap counterparty in respect of the class A notes (*see Swap Agreement section*).
3. Interest on the class A notes.
4. Amounts due to the swap counterparty in respect of the class B notes.
5. Amortisation of the principal of the class A notes.
6. Interest on the class B notes.
7. Amortisation of the principal of the class B notes.
8. Replenishing the reserve fund to its minimum required balance (*see Credit Enhancement section*).
9. Interest on the subordinated loan (*see Subordinated Loan section below*).
10. Amortisation of subordinated loan principal.
11. Servicing commission to LC.
12. Financial intermediation margin to LC.

In the event that LC will be replaced as servicer of the mortgage loans, the servicing commission, described in item number 11, will be paid as item number 6.

## Principal Redemption

On an ongoing basis, the class A and B notes will be redeemed in line with the principal balance of the collateral amortisation. The amortisation of class B will begin when the class A notes are fully amortised.

The notes are subject to a clean-up call if less than 10% of the notes remain outstanding. Additional provisions allow for redemption upon the occurrence of legal changes affecting the financial equilibrium of Foncaixa H4. To the extent not previously paid

## Key Information

### Provisional Portfolio characteristics

*Total Amount:* EUR 600 million

*WA OLTV:* 67.9%

*WA CLTV:* 61.3%

*WA Remaining Maturity:* 22.8 years

*WA Seasoning:* 2.7 years

### Structure

*Originator/Service:* Caixa d'Estalvis i Pensions de Barcelona. ('LCP') ('AA-/F1+')

*Issuer:* Foncaixa Hipotecario 4, Fondo de Titulización

*Sociedad Gestora:* GestiCaixa, S.G.F.T.H., S.A

*Swap Counterparties:* LC

down, the notes are due to be redeemed on the final maturity date on 15 December 2031.

### Credit Enhancement

Credit enhancement for the class A notes, totalling 4.5%, will be provided by the subordinated class B notes 2.8% and the reserve fund (1.7%). Credit enhancement for the class B notes, totalling 1.7%, will be provided by the reserve fund.

The reserve fund will initially amount to 1.7% of the original note balance, funded by a subordinated loan provided by LC. The size of the reserve fund will always be equal to the lower of the initial reserve fund or 3% of the outstanding balance of the mortgages, with a floor level of 0.75% of the original note balance.

Once the reserve fund has started amortising, it will be the minimum of:

- 1.7% of the initial mortgage loan participations, plus 50% of the balance of mortgages more than 90 days in arrears; and
- 3% of the outstanding balance of the mortgages plus 50% of the balance of mortgages more than 90 days in arrears.

### Swap Agreements

The class A and B notes will each benefit from the existence of swap agreements with LC. Each swap agreement provides for the swap counterparty to pay to the Sociedad Gestora the interest applicable to the

respective class of notes on behalf of Foncaixa H4. The Sociedad Gestora, on behalf of Foncaixa H4, will pay the swap counterparty in respect of either class of notes an amount equal to the previous quarter's accrued interest rate on the loans, minus a margin of 65 basis points, and weighted by the outstanding balance of the relevant class of notes.

In the event of a downgrade of LC below 'F1', a guarantee from a company rated 'F1' must be provided within 30 days to cover the obligations assumed by LC as swap counterparty. If this is not possible, or if LC is not able to continue performing under the swap agreement, a replacement swap counterparty meeting rating requirements must be found. The swap agreement does not follow the international standards of the International Swaps & Derivatives Association (ISDA); however, Fitch has reviewed the agreement and found that this has no negative credit impact.

### Representations and Warranties

The transfer of the mortgage receivables from LC to the Gestora is subject to representations and warranties. If any of the mortgage receivables do not conform to the following conditions, LC will, with prior agreement of the Gestora, immediately substitute the relevant mortgages.

Specifically, the representations and warranties include the following:

- All mortgage loans are valid and enforceable pursuant to the applicable legislation.
- LC has full title to all mortgage loans
- Each of the mortgage loans is secured by a first property mortgage over full ownership of each and every one of the properties in question
- None of the properties is subject to prohibitions of disposal or any other limitations of ownership
- All of the securitised mortgage loans are formalised in a public deed and are not subject to any right ranking higher
- All properties have been appraised by appraising entities duly registered in the official register of the Bank of Spain
- All properties are validly insured against fire and other damage covering at least the replacement value
- LC is not aware of any circumstance which may impede the foreclosure of the mortgages.

## ■ Legal Structure

At closing, the mortgage loans have been sold by LC to the Sociedad Gestora on behalf of Foncaixa H4. The Sociedad Gestora is a special purpose company with limited liability incorporated under the laws of Spain and is owned by:

- Caixa Holding, S.A., 80%.
- VidaCaixa, S.A. de Seguros y Reaseguros, 9%.
- Caixa de Barcelona Seguros de Vida, S.A. de Seguros y Reaseguros, 6%.
- HipoteCaixa, E.F.C., S.A., 5%.

The Sociedad Gestora's activities are limited to the management of mortgage asset-backed notes.

The participation issuer, LC, will transfer the purchased rights (the loan claims and collateral securing the loans) to Foncaixa H4. LC will also transfer or pledge all present or future claims or rights under the various transaction documents to Foncaixa H4.

## ■ Collateral

The reference portfolio consists of 11,936 mortgage loans with a total outstanding balance of approximately EUR 600 million originated by LC in the normal course of their business. Around 55% of these products have certain characteristics that are usually associated with "flexible" mortgages. These benefits – available only to those borrowers not in arrears and who do not fail rigorous credit checks undertaken by LC – include:

- the right to further drawdowns, subject to a new approval by LC, up to the initial credit limit, provided current loan-to-value ratio (LTV) (measured using original property appraisal values) does not exceed 80%;
- At the discretion of LC, the ability to take a forbearance period of up to 24 months, during which borrowers are exempt only from principal repayments to the extent that they are current.

All the loans are secured by residential properties in Spain. The security for the loans are mortgages registered in the '*Registro de la Propiedad*' (the official register).

All the loans are variable-rate loans, 46.5% by outstanding principal balance are linked to the 12-month Madrid Interbank Offered Rate (MIBOR), while the remainder is linked to the average mortgage interest rate from commercial and saving banks in

Spain. As of the closing date, no mortgage loans had any payments in arrears.

## ■ Origination and Servicing

In addition to the pool analysis, Fitch has reviewed and analysed LC's origination and servicing guidelines. Fitch has conducted several interviews with the respective originator and servicer managers responsible for LC's mortgage loan department. LC follows a tight process of underwriting criteria based on detailed procedures underwriting manual.

LC puts a strong emphasis on a borrower's ability to pay and has employed a credit scoring system since November 1997. Fitch views the use of a credit-scoring system favourably. The borrower's ability to pay is determined primarily by the borrower credit profile, risk profile of the property, and purpose and LTV of the transaction.

The loans in the portfolio have been originated by LC's local branch network. The residential mortgage business is regionally organised, with approximately 4,229 branches. A branch manager can approve mortgage loans within certain maximum amounts, depending on the credit analysis. If the amount of the mortgage loan exceeds the maximum, approval by a regional manager is mandatory. Exceeding this level of authorisation, approval must be given by a centralised committee. Appraisals for residential properties are usually performed on site, by independent estate agents registered with and governed by the Bank of Spain.

All the borrowers will make their mortgage payments via direct debit. Generally, in the event of a payment being about four days in arrears, the borrower will be contacted by the local branch. During this first stage, which lasts until the payment is 14 days past due, local branches try to work out the outstanding arrears. The system will generate reminder letters on the 15th, 30th, and 45th day after the missed payment date. After 14 days in arrears, a modern centralised telephone recovery centre, with 12 telephone operators, will contact the debtor to reach an agreement on a new payment date. After 30 days in this centre without positive results, the local branches will start pre-foreclosure procedures. On or before 210 days in arrears, the client's account will be transferred to the legal department of the regional unit to handle the foreclosure process.

## ■ Credit Analysis

Fitch analysed the collateral for Foncaixa H4 by subjecting the mortgage loans to stresses resulting from its assessments of historical home price movements and defaults in Spain (see *Fitch's Research on "Spanish Mortgage Default Model," dated 20 January 1999*). The analysis is based on the probability of default and loss severity as the main components of expected loss (see *Appendix 1*).

### Default Probability

Generally, the two key determinants of default probability are the willingness and ability of a borrower to make the mortgage payments. The willingness of a borrower to pay is usually measured by the LTV. Fitch assumed higher default probabilities for high LTV loans and lower default probabilities for low LTV loans. The main reason is that in a severe negative equity situations, borrowers in financial distress but with equity in their homes (low LTV loans) have an incentive to sell and maintain/protect their equity, eliminating the need for the lender to repossess the property.

The ability to pay is usually measured by the borrower's net income in relation to the mortgage payment. As is the case with many Spanish originators this information was not available on a loan-by-loan basis for Foncaixa H4. However, LC has a strong focus on a borrower's ability to pay and have comparatively strict origination guidelines in this direction. Historical data available for Spain show low levels of default. Therefore, Fitch assumed that borrowers generally have an average ability to pay.

The mortgage product is relatively new in Spain, therefore there is a lack of significant statistical data regarding the behaviour of borrowers. Fitch takes into consideration the specific characteristics of the product in the default probability analysis of the portfolio, assuming the LTV based on the original balance of the initial drawdown as the main measure of the willingness of a borrower to pay.

### Loss Severity

To estimate loss severity on the mortgage loans in Spain, Fitch examined house price movements in Spain on a regional basis from 1987–1997. Fitch found significant differences among the regions, most notably between the regions of Madrid, Cataluña and País Vasco, and the rest of the regions in Spain. Cities in these three regions have experienced higher price increases than other cities in Spain. Based on

its analysis of the real estate market, Fitch assumed slightly higher market value declines for certain regions as well as for some large urban areas.

To derive market value declines for the respective stress scenarios, Fitch then compared the characteristics of the Spanish real estate market with markets in other European countries. As in its other European mortgage default models, Fitch increased market value declines for higher value properties. These properties are generally subject to higher market value declines in a deteriorating market than homes with average or below-average market values due to limited demand for such properties. Approximately 16% of the reference pool is considered by Fitch to be secured on high value ('jumbo') properties.

In terms of geographic concentration, the properties securing the portfolio are predominantly in the Cataluña (29.4%), Madrid (33%) and Andalucía (9.2%) regions, while no other region represents more than 8% of the portfolio. Fitch deemed that no region was sufficiently dominant geographically to warrant a special increase in its MVD.

When calculating recovery value, Fitch's model reduces each property value by the market value decline, external foreclosure costs, and the cost to the servicer of carrying the loan from delinquency through to default. The cost of carrying the loan depends on the time to foreclosure as well as the applied interest rate, which, in the worst case scenario, Fitch assumes to be 10%. Fitch believes the assumed time to foreclosure for Foncaixa H4 is 3 years.

Due to the line of credit facility, the recovery value is shared *pari passu* between initial advances and any further drawdowns secured on the same property, *pro rata* according to their respective current balances. In the light of historical drawdown data provided by LC, Fitch has assumed that 50% of loans were fully drawn to their lines of credit in calculating loss severity.

## ■ **Surveillance**

Fitch will monitor the transaction on a regular basis and as warranted by events. Fitch's structured finance team ensures that the assigned ratings remain, in Fitch's view, an appropriate reflection of the issued notes' credit risk.

Details of the transaction's performance are available to subscribers at [www.fitchratings.com](http://www.fitchratings.com). Further information on the service is available at [www.fitchratings.com](http://www.fitchratings.com).

Please call the Fitch analysts mentioned on the first page of this report for any queries regarding the initial analysis or the ongoing surveillance.

■ **Appendix I: Methodology**

To determine appropriate levels of credit enhancement, Fitch analyses the collateral for Spanish residential transactions using a loan-by-loan mortgage default model (see *Fitch Research on “Spanish Mortgage Default Model,”* dated 20 Jan. 1999, available at [www.fitchratings.com](http://www.fitchratings.com)). The model subjects the mortgage loans to stresses resulting from its assessments of historical home price movements and defaults. Fitch’s study showed that the LTV, reflecting the size of the borrower’s downpayment, and the borrower’s income multiple (original loan advanced divided by income) are the primary indicators of default risk in Spain. Fitch also modelled the cash flow contribution from excess interest using stress scenarios determined by its default model. The cash flow test showed that each class of rated notes, taking available credit enhancement into account, can withstand loan losses at a level corresponding to the related stress scenario without incurring any principal loss or interest shortfall.

**Default Probability**

Generally, the two key determinants of default probability are the borrower’s willingness and ability to make the mortgage payments. The willingness of a borrower to pay is usually measured by the LTV. Fitch’s model assumes higher default probabilities for high LTV loans and lower default probabilities for low LTV loans. The main reason is that in a severe negative equity situation, borrowers in financial distress but with equity in their homes (low LTV loans) have an incentive to sell and maintain/protect their equity, eliminating the need for the lender to repossess the property.

The ability to pay is usually measured by the borrower’s net income in relation to the mortgage payment. Historical data available for Spain show low levels of default. Base default probabilities are determined by using a matrix that considers each loan’s affordability factor and LTV. The matrix classifies affordability into five classes, the lowest of which (Class 1), encompasses loans with Debt-to-Income ratios (DTI) of less than 20% and the highest of which (Class 5) encompasses all loans with DTIs exceeding 50%. The average DTI for the mortgage market in Spain is approximately 27%, which equates to a base default probability of 6-34% depending on LTV.

**Adjustments**

Fitch adjusts the base default rates on a loan-by-loan basis to account for individual loan characteristics of the collateral across all rating levels.

- **product type:** Fitch increases default probability assumptions by 0%-10% for the index volatility experienced by variable-rate mortgage holders
- **repayment type:** Fitch will increase base default rates by 5%-10% for loans to be paid by cuota creciente, whereby the amortization of capital is always the same and the interest payment is increasing
- **loan purpose:** Fitch believes that a financially distressed borrower is more likely to default on a second home or investment property than on a primary residence. Accordingly, Fitch will double the base default rates in both cases. If the purpose of the loan is not the acquisition of a property in Spain, Fitch will increase the default probability by 50%-100%
- **borrower profile:** Fitch increases default probability on loans to self-employed borrowers by 33%-50% to account for their lack of fixed annual salary.
- **arrears status:** when rating portfolios combining current and arrears mortgages, Fitch increases base default rates for mortgages in arrears by 1-30, 31-60, and 61-90 days by 10%, 35% and 70% respectively, and mortgages over 91 days in arrears (non-performing status) by 100%
- **underwriting quality:** Fitch’s review and analysis of the origination process determines whether Fitch decreases default rates by up to 25% or increases them by 0%-200%.

## Loss Severity

To estimate loss severity on the mortgage loans in Spain, Fitch examined home price movements in Spain on a regional basis from 1987–1997. Fitch found significant differences in price development among regions, mainly between the regions of Madrid, Cataluña, País Vasco, and the rest of the regions in Spain. The cities of these regions have experienced higher price increases than other cities in Spain. As in most other countries, rural areas tend to develop on a more stable basis. Based on its analysis of the real estate market, Fitch assumed slightly higher market value declines for certain regions as well as for some large urban areas.

To derive market value declines for the respective stress scenarios, Fitch then compared the characteristics of the Spanish real estate market with markets in other European countries. As in its other European mortgage default models, Fitch increased market value declines for higher value properties. These properties are generally subject to higher market value declines in a deteriorating market than homes with average or below-average market values due to limited demand for such properties.

When calculating recovery value, Fitch's model reduces each property value by the market value decline, external foreclosure costs, and the cost to the servicer of carrying the loan from delinquency through default. For Spain, Fitch assumes external foreclosure costs represent 10% of the loan's balance at the time of default. Loss severity also incorporates the fact that the length of time of the foreclosure process might be longer than the actual one in a recession period. To calculate carrying costs, Fitch uses a worst-case scenario analysis, assuming that the borrower does not pay interest and the collateral is not realised for a period of 3.5 years.

## Excess Spread

Excess spread represents the monetary difference between the income received by the issuer from the borrowers and the interest on the notes and other expenses paid by the issuer. Any reserve fund will be replenished from available excess spread, if it is drawn. The actual value of excess spread depends on levels of delinquencies, defaults, and prepayments, as well as the weighted average interest rate of the reference mortgage portfolio throughout the life of a transaction. The Threshold Rate calculation is designed to guarantee the issuer a minimum level of excess spread.

Copyright © 2001 by Fitch Ratings Ltd, Eldon House, 2 Eldon Street, London EC2M 7UA, UK  
 Telephone: New York, 1-800-753-4824, (212) 908-0500, Fax (212) 480-4435; Chicago, IL, (312) 368-3100, Fax (312) 263-1032;  
 London, 011 44 20 7417 4222, Fax 011 44 20 7417 4242; San Francisco, CA, 1-800-953-4824, (415) 732-5770, Fax (415) 732-5610  
 Printed by American Direct Mail Co., Inc. NY, NY 10014. Reproduction in whole or in part prohibited except by permission.

Fitch Ratings Ltd's credit ratings address the likelihood that full and timely payment will be made in accordance with the terms of the rated security. The rating does not address the risk of loss due to risks other than credit risk, such as interest rate and exchange rate risks. The rating is based primarily on information provided by the issuer and its agents, but Fitch Ratings Ltd does not verify the truth or accuracy of such information. The rating is not a prospectus, and investors should refer to information provided by the issuer where available. The rating is not a recommendation to purchase any security in as much as it does not address adequacy of price, suitability for any particular investor, and noncredit risk. Fitch Ratings Ltd receives payment for the rating from the issuer. Please do not distribute this report to any other person outside your organization as such distribution may be restricted by law. This rating report is only distributed to any person in the U.K. on the basis that the person falls within Article 11(3) of The Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1995 No. 1266. Fitch Ratings Ltd ratings are based on information obtained from issuers, other obligors, underwriters, their experts, and other sources Fitch Ratings Ltd believes to be reliable. Fitch Ratings Ltd does not audit or verify the truth or accuracy of such information. Ratings may be changed, suspended, or withdrawn as a result of changes in, or the unavailability of, information or for other reasons. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch Ratings Ltd receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from \$1,000 to \$750,000 per issue. In certain cases, Fitch Ratings Ltd will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from \$10,000 to \$1,500,000. The assignment, publication, or dissemination of a rating by Fitch Ratings Ltd shall not constitute a consent by Fitch Ratings Ltd to use its name as an expert in connection with any registration statement filed under the federal securities laws. Due to the relative efficiency of electronic publishing and distribution, Fitch Ratings Ltd Research may be available to electronic subscribers up to three days earlier than print subscribers.