RMBS/Spain
New Issue

Bancaja 4, Fondo de Titulización Hipotecaria

Ratings

Class	Amount (EUR million)	Final maturity	Rating	CE (%)
A	970.5	June 2034	AAA	3.75
B	20.5	June 2034	A+	1.7
C	9	June 2034	BBB+	0.8

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Summary

This transaction is a securitisation of residential mortgage loans originated in, and secured on, property located in Spain. Fitch Ratings ("Fitch") has assigned ratings to the notes issued by Bancaja 4, Fondo de Titulización Hipotecaria ("Bancaja 4" or "the Fund") as indicated on the left.

At closing, Bancaja 4 issued notes backed by a portfolio of residential mortgage loans originated by Caja de Ahorros de Valencia, Castellón, y Alicante ("Bancaja" or the "Seller"), which will continue to service the mortgages. Bancaja 4 is regulated by Spanish Securitisation Law 19/1992 and Royal decree 926/1998. Its sole purpose is to transform the mortgage loan participations acquired from the participation issuer, Bancaja (rated 'A+/F1' by Fitch), into fixed-income securities. The participations will be subscribed by Europea de Titulización, S.A., S.G.F.T. (Sociedad Gestora) on behalf of Bancaja 4. The Sociedad Gestora is a corporation with the sole purpose of the management of asset-backed funds.

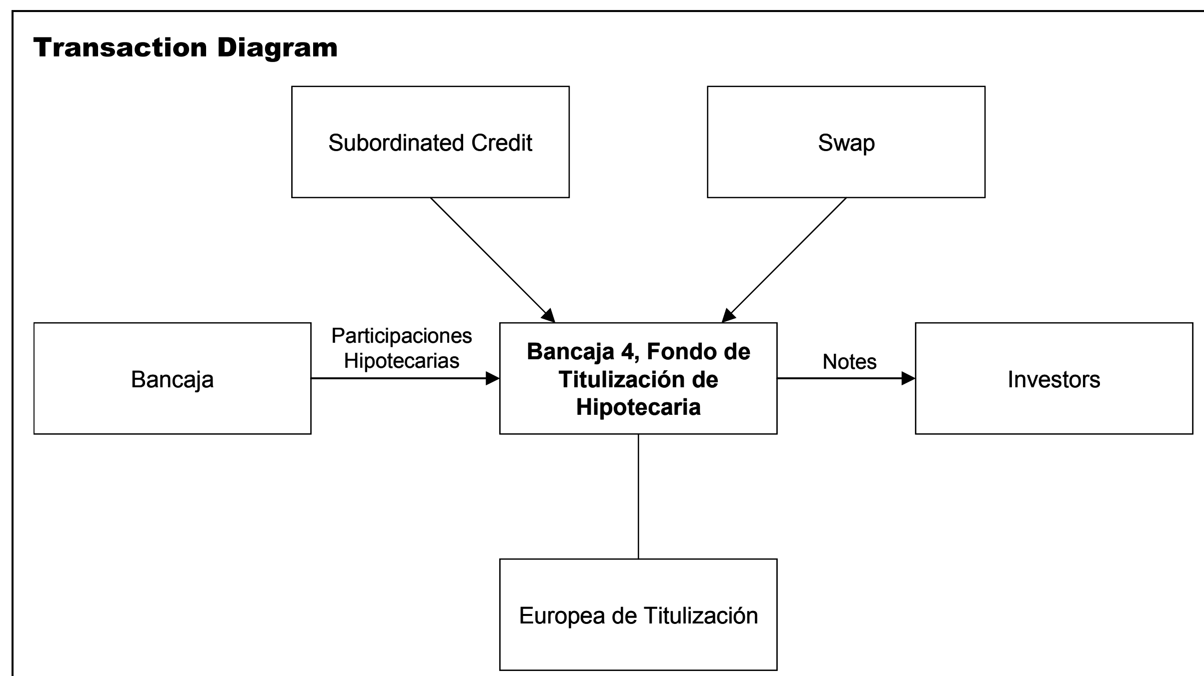
Bancaja is the fourth largest savings bank and the seventh largest financial institution by assets in Spain. It has traditionally focused on the region of Valencia and residential mortgages are one of its core businesses.

The ratings are based on the quality of the collateral, the underwriting and servicing of the mortgage loans, available credit enhancement and the sound legal and financial structures. Initial credit enhancement for the Class A notes, totalling 3.75%, is provided by the Class B and C notes and the subordinated credit. Initial credit enhancement for the Class B notes, totalling 1.7%, is provided by the Class C notes and the subordinated credit. Credit enhancement for the Class C notes, totalling 0.8%, is provided by the subordinated credit. In addition to subordination and the subordinated credit, the transaction also benefits from the 0.50% excess margin guaranteed by the swap.

To determine appropriate levels of credit enhancement, Fitch analysed the collateral using a loan-by-loan mortgage default model specific to 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.

16th December 2002

Transaction Diagram



Credit Committee Highlights

- Gross excess spread guaranteed at 0.50% by a total return swap.
- 59.8% of the portfolio is located in the Comunidad of Valencia. To mitigate this risk Fitch has stressed default probabilities for the loans concerned.
- Low Loan to Value (LTV) mortgages.
- Unlike the Bancaja 3 Fondo de Titulización de Activos transaction, Bancaja 4 does not incorporate substitution or principal retention mechanisms.

Financial Structure

Classes A,,B and C will pay interest quarterly in arrears at a floating rate based on three-month Euribor plus a margin.

The mortgages will continue to be serviced by Bancaja, acting as the administrator. Amounts received from the mortgages will be transferred by Bancaja into the Fund’s treasury account every ten days or, if deemed necessary by the *Sociedad Gestora,* on a more frequent basis.

Priority of Payments

Revenue payments will be allocated, prior to enforcement, on each distribution date in the following priority of payments:

i. The Fund’s senior fees and expenses;
ii. Payments due under the interest rate swap agreements;
iii. Interest due on the Class A notes;
iv. Interest due on the Class B notes, if not deferred;
v. Interest due on the Class C notes, if not deferred;
vi. Replenishment of the reserve fund, if the latter has been funded;
vii. Principal retention to amortise the notes (see below);
viii. Interest due on the Class B notes, if deferred;
ix. Interest due on the Class C notes, if deferred;
x. Interest due on the subordinated credit, if not deferred;
xi. Principal reimbursement to the subordinated credit, if not deferred;
xii. Interest due on the subordinated loan;
xiii. Principal due on the subordinated loan;
xiv. Interest due on the subordinated credit, if deferred;
xv. Principal due on the subordinated credit, if deferred;
xvi. Administrator fee, unless Bancaja has been replaced as the administrator in which case this fee will be paid as item #1;
xvii. Financial intermediation to Bancaja.

Interest deferrals:

- Interest due on the B notes will be deferred if the outstanding balance of mortgages more than 90 days in arrears exceeds 8% of the total outstanding balance of the mortgages, and if Class A notes are still outstanding; and
- Interest due on the Class C notes will be deferred if the outstanding balance of mortgages more than 90 days in arrears exceeds 5.45% of the total outstanding balance of the mortgages, and if Class A and B notes are still outstanding.

Key Information

Provisional Portfolio characteristics

Total Amount at Closing: EUR1,090.3 million (of which EUR1,000m is selected at closing)

WA Original LTMV: 68.1%

WA Current LTMV: 63.3%

WA Remaining Maturity: 20.8 years

WA Seasoning: 15.88 months

Concentration in Valencia: 59.8%

Structure

Originator & Seller: Caja de Ahorros de Valencia, Castellón, y Alicante, Bancaja

Servicer: Bancaja

Fund: Bancaja 4, Fondo de Titulización Hipotecaria (Bancaja 4)

Sociedad Gestora: Europea de Titulización, S.A., S.G.F.T.

Swap Counterparty: Bancaja (rated A+/F1)

Final Legal Maturity: 18th June 2034

In the event the Fund needs to be liquidated the notes will be due and payable. All available funds will be allocated sequentially to interest and principal payments due on the Class A notes, then the Class B notes, and finally the Class C notes, after certain senior third party expenses.

Principal Redemption

Until the payment date when the proportion of Classes B and C notes are double that of closing, principal payments on the notes will be sequential. Once the proportion of the Classes B and C notes has doubled, all notes will be paid *pro rata* subject to the following conditions being satisfied:

- The subordinated credit is at its maximum required amount;
- Outstanding balance of mortgages more than 90 days in arrears remains below 2%; and
- No principal deficiency exists.

Interest Rate Risk

The Fund will enter into an interest hedging agreement with Bancaja to cover the basis and margin compression risks. The swap, as described below, will guarantee a 0.5% excess margin.

The Fund will pay Bancaja interest received from the mortgages, and will receive three-month Euribor plus the margin on the notes and 0.5%.

If Bancaja's long–term rating is cut to below 'A+' Bancaja will, within 10 days, do one of the following:

- Cash, or security, collateralise in an amount satisfactory to the rating agencies;
- Find a replacement counterparty with a long–term rating of at least 'A+'; or
- Find an entity rated at least 'A+' to guarantee its obligations under the swap.

Credit Enhancement

Initial credit enhancement at closing for the Class A notes, totalling 3.75%, is provided by the Class B and C notes and the subordinated credit. Credit enhancement for the Class B notes, totalling 1.7%, is provided by Class C and the subordinated credit. Credit enhancement for the Class C notes totalling 0.8% will consist of the subordinated credit (see below).

Subordinated Credit and Reserve Fund

A subordinated credit will be provided at closing by Bancaja, in the form of a line of credit, equivalent to 0.8% of the original principal balance, which will thereafter be the higher of:

a. 1.6% of the outstanding note balance; or
b. 0.4% of the original principal balance.

However, the required amount will remain the same as on the previous payment date if the outstanding balance of mortgages more than 90 days in arrears exceeds 1% of the outstanding mortgage balance. Moreover, no reduction of the subordinated credit will occur if a principal deficiency exists.

If Bancaja's short–term rating falls below 'F-1' the bank will, within 10 days, pay the outstanding balance of the subordinated credit into a reserve fund unless it finds a third party rated at least 'F-1' to guarantee its obligations, though this will be subject to the approval of the rating agencies.

Representations and Warranties

No search of title will be conducted by the Fund or other transaction parties, instead they will rely on the representations and warranties mentioned below, provided by Bancaja in relation to the pool of mortgages. If there is an irretrievable breach of any of the representations or warranties, Bancaja will be required to repurchase the loan(s) in question.

Specifically, the representations and warranties include the following:

- Bancaja has full right and title to the Mortgage loans and the power to sell and transfer the mortgages;
- Each mortgage loan was originated by Bancaja in accordance with its standard underwriting criteria and procedures;
- Each mortgage loan is registered in the relevant property registry and is first–ranking on its corresponding property;
- Bancaja is not aware of any dispute on any of the mortgages;
- Bancaja is not aware that any of the underlying properties have been subject to more than a 20% reduction in value;
- Bancaja has full title to all mortgage loans;
- Each property under the underlying mortgage loan has been the subject of a valuation as if required by law; and,
- Each mortgage loan, constitute legal, valid, binding and enforceable obligations on the relevant borrower.

■ Legal Structure

At closing, the mortgage loans will be sold by Bancaja to the Sociedad Gestora on behalf of the Fund. The Sociedad Gestora is a special purpose company with limited liability incorporated under the laws of Spain. It is owned by 16 entities, including:

- Banco Bilbao Vizcaya Argentaria, S.A. (83%)
- J.P. Morgan España, S.A. (4%)
- Caja de Ahorros del Mediterráneo (1.5%)
- Bankinter, S.A. (1.5%)
- Barclays Bank (1.5%)
- Citibank España, S.A. (1.5%)

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

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

Collateral

The reference portfolio consists of 17,310 mortgage loans originated by Bancaja in the normal course of their business. All the loans are secured by residential properties in Spain. Security for the loans are mortgages registered in the '*Registro de la Propiedad*' (the official register) and are first–ranking.

All the loans are variable-rate, 89% by outstanding principal balance are linked to Euribor and MIBOR, while the remainder are linked to the average mortgage interest rate from saving banks in Spain. As of the closing date, no mortgage loans had any payments in arrears for more than 30 days.

■ Origination and Servicing

As part of its analysis, Fitch has reviewed and analysed Bancaja's origination and servicing guidelines. Fitch made an on-site visit to Bancaja and met with the originator and servicer managers responsible for the mortgage loan department.

Bancaja is the fourth largest savings bank and the seventh largest financial institution by assets in Spain. It is rated 'A+/F-1' by Fitch. A large percentage of its business is generated in the Valencia region, for historic reasons, which is reflected in the entity's mortgage portfolio.

Until March 2001, credit approval was carried out at office level. Since then it has been provided by CAT ("*Centro de Autorizaciones Telefónicas*"), a centralised department used for the approval of mortgage applications. Credit analysis is based on a credit scoring system Bancaja began developing 10 years ago, which results in a positive, negative or doubtful score. In the case of the latter a loan might still be approved if additional guarantees and/or conditions are provided and/or complied with. At least two analysts approve each loan request. Branch directors, however, have a right of veto in such conditions, although this remains relatively uncommon.

Information analysed by the scoring system includes DTI (a maximum of 40% is allowed), negative information from CIRBE (a Bank of Spain database which gathers exposure and non–payment information of a borrower to all Spanish entities), RAI (*Registro Acceptación Impagados*) or Experian, in addition to other credit parameters on the financial volatility of the applicant. With a few exception, the maximum LTV allowed is 80%, but this is not taken into account in the credit scoring since the latter solely focuses on the ability of the borrower to honour his or her debt payments in a timely fashion. The majority of the properties are valued by TINSA, Tasaciones Inmobiliarias S.A., Spain's largest valuation company, registered and regulated by the Bank of Spain.

Mortgages in arrears are managed by the branches for the first 90 days, and subsequently by the Risk Department. A certain number of letters, automatically originated by the bank's system, and calls (through an external specialised call centre) are

made, their frequency and content depending on the level of exposure to the borrower. Documentation and procedures required for the foreclosure process are prepared as soon as is deemed necessary (even before 90 days of delinquency) with the aim of enabling lawyers to start proceedings within 24 hours once the decision to commence foreclosure is taken. On average such court proceedings tend to begin after four to six months, and last around a year and a half. The time to recovery has reduced in recent years. Bancaja does not favour negotiations or refinancings on the repayment of arrears amounts, and such arrangements remain negligible.

■ Credit Analysis

Fitch analysed the collateral for the Bancaja 4 transaction by subjecting the mortgage loans to stresses resulting from its assessments of historical home price movements and defaults in Spain. The analysis is based on the probability of default and expected recoveries determined on the portfolio's individual loans *(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 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. As is the case with many Spanish originators this information was not available on a loan-by-loan basis for Bancaja 4. However, Bancaja has a strong focus on a borrower's ability to pay, has comparatively strict origination guidelines in this direction and only allows a maximum DTI of 40%. Therefore, Fitch assumed that borrowers generally have an average ability to pay.

Fitch takes into consideration the specific characteristics of the product in the default probability analysis of the portfolio, taking the LTV based on the original balance of the initial drawdown as the main measure of the willingness of a borrower to pay.

The securitised pool has a geographical concentration in the *Comunidad* of Valencia, with over 59.8% of mortgages located in this region. Fitch increased default probabilities for these loans by 10% to mitigate for the concentration risk.

Recovery Proceeds

To estimate recoveries on the mortgage loans in Spain, Fitch examined house price movements in Spain on a regional basis from 1987–2001. Fitch found significant differences, most notably between Madrid, Cataluña and País Vasco, and the other regions in Spain. Cities in these three regions have experienced higher price increases than regions elsewhere in Spain. Based on its analysis of the real estate market, Fitch assumed slightly larger 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 with its other European mortgage default models, Fitch has increased market value declines for higher value properties. These are generally subject to higher market value declines in a deteriorating market than homes with average or below-average market values because of limited demand for them. Approximately 19% of the reference pool is considered by Fitch to be secured on high value ('jumbo') properties.

When calculating recovery value, Fitch's model reduces each property's worth by the market value decline, external foreclosure expenses, 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 Fitch assumes to be 5%. Although Bancaja currently experiences a recovery period of a year and a half, Fitch assumes a time to foreclosure of three years.

■ Cash Flow Analysis

To evaluate the contribution of structural elements such as excess spread, the subordinated credit and other factors, Fitch has modelled the cash flows based on the weighted average recovery rate and weighted average frequency of foreclosure provided by the loan-by-loan collateral analysis. Recoveries include both interest and principal recovery.

The cash flow model assumes that defaults are spread evenly over a period of three years starting nine months after closing. The cash flow analysis simulates the cost of carrying the defaulted loans as the difference between the performing balance of the mortgages and the notional balance of the notes. Excess spread, reserve fund and principal have to be sufficient to cover the cost of carry until recoveries

are received after 36 months. Interest rates are stressed upwards over time.

The cash flow analysis assumes a high level of prepayments on the mortgages, which stresses the total amount of excess spread available to the transaction. Assumed prepayment levels are respectively 25%, 21% and 18% for the 'AAA', 'A' and 'BBB' scenarios.

The ratings reflect the highest level of stress assumptions for which there is no interest shortfall during the life of the transaction or principal shortfall at final maturity. The subordinated credit has been sized so that all note interest payments will be made on a timely basis under the relevant stress assumptions.

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.* Further information on the service is available at *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: Rating Methodology

To determine appropriate levels of credit enhancement, Fitch analyses the collateral for Spanish residential transactions using a loan-by-loan mortgage default model. 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 down payment, 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 using a matrix which 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 circa 27-33%.

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 amortisation 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 1987–2001. 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 and 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 with its other European mortgage default models, Fitch has increased market value declines for higher value properties. These properties are generally subject to larger 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 expenses, 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, one that assumes the borrower does not pay any interest and the collateral is not realised for a period of three 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.

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