Bankia S.A.

Spanish Mortgage-Covered Bonds – Performance Update

Ratings

Cut-off date	Eligible cover pool	Cover asset type	Covered bonds*	Rating/Outlook
31 Mar 2018	EUR 56bn	Residential and commercial mortgage loans	EUR 30.2bn	AAA/Stable

*Cédulas hipotecarias (CHs) – Spanish mortgage-covered bonds
Scope's covered bond ratings constitute an opinion about the relative credit risks and reflect the expected loss associated with the payments contractually promised by an instrument on a particular payment date or by its legal maturity. See Scope's website for our covered bond rating definitions.

Rating rationale (summary)

Scope's AAA ratings with a Stable Outlook assigned to the cédulas hipotecarias (Spanish mortgage-covered bonds or CHs) issued by Bankia S.A. (Bankia) reflect our issuer rating of BBB+/ Stable / A-2, further enhanced by seven notches of cover pool support. Mortgage covered bonds ratings incorporate:

1. Fundamental credit support: the benefits of the Spanish legal covered bond framework, as well as our credit-positive view on the benefits of the resolution regime, the products and the issuer's systemic importance combined translating into a six-notch credit differentiation.
2. Cover pool support: the cover pool can support a maximum credit differentiation of up to nine notches above the issuer rating of which only seven notches are needed to achieve the highest rating. available. The full mortgage book provides a generous level of overcollateralisation (OC) which serves as collateral for the CHs. The asset quality of the collateral is improving but is still considered weak in an international context. Market risks, in particular mismatch risks, remain significant, but are also offset by available OC.

	D9	(unused)	Cover pool support +9*
	D8	(unused)	Cover pool support +8*
	D7	AAA	Cover pool support +7
Resolution regime +4	D6	AA+	Cover pool support +6
Resolution regime +3	D5	AA	Cover pool support +5
Resolution regime +2	D4	AA-	Cover pool support +4
Resolution regime +1	D3	A+	Cover pool support +3
Legal framework +2	D2	A	Cover pool support +2
Legal framework +1	D1	A-	Cover pool support +1
Issuer rating	D0	BBB+	Issuer rating
Fundamental credit support	**Distance**	**Ratings**	**Cover pool analysis**
	Covered bond uplift		

*Maximum issuer-specific uplift of nine notches (D9) as per Scope's methodology. The rated covered bonds reflect a seven-notch uplift: six notches (fundamental credit support) + one notch (cover pool analysis).

Bankia is the main holding of BFA group which belongs to the national bank rescue fund Fondo de Reestructuración Ordenada Bancaria. Despite being ultimately controlled by the Spanish government, Scopes issuer rating does not incorporate any additional rating notch for state support.

Outlook

Scope's Stable Outlook on the CHs issued by Bankia is based on the continuous availability of high OC providing a significant buffer against a rise in credit and market risks. It also reflects Scope's Stable Outlook on Bankia.

Ratings & Outlook

Issuer rating	**BBB+**
Outlook	Stable
Last rating action	Affirmation
Last rating action date	28.03.2018
Covered bond rating	**AAA**
Outlook	Stable
Rating action	Affirmation
Last rating action date	12.07.2018

The issuer has solicited the assigned rating and participated in the rating process.

Rating team (covered bonds)

Karlo Fuchs
+49 69 6677389-78
k.fuchs@scoperatings.com

Mathias Pleißner
+49 69 6677389-39
m.pleissner@scoperatings.com

Lead analyst (issuer bank)

Marco Troiano
+44 203 4570-577
m.troiano@scoperatings.com

Scope Ratings GmbH
Lennéstraße 5
10785 Berlin
Tel. +49 30 27891 0
Fax +49 30 27891 100
info@scoperatings.com
www.scoperatings.com
Bloomberg: SCOP

Rating-change drivers

The covered bond ratings may be downgraded if: i) Bankia's issuer rating is downgraded by more than two notches assuming the full cover pool support of three notches was granted or ii) the legal framework and resolution regime become materially less supportive to Spanish mortgage-covered bonds.

We do not believe that the upcoming covered bond harmonisation will have negative implications for our fundamental credit support analysis. Likely, covered bond investors recourse will be limited to a defined cover pool rather than the full mortgage book and reduce minimum overcollateralisation available for Spanish covered bonds. The high systemic importance of covered bonds as a refinancing product for Spanish banks will like result in a sufficient grace periods to allow for a non-disruptive transition.

Scope affirmed the bank rating at BBB+ with a stable outlook on 28 March 2018 and the covered bond ratings at AAA/ Stable on 12 July 2018. No material changes to the credit performance nor cover pool composition occurred since. The reviews incorporated the impact of the merger with Banco Mare Nostrum S.A (BMN) and its impact on the cover pools credit quality (stable) and its cash flow profile. Changes to the combined covered bond cash flow profiles were limited and risks remain adequately buffered with the available excessive overcollateralisation of about 144%.

Rating drivers and mitigants (summary)

Positive rating drivers	Negative rating drivers and mitigants
The issuer. Stable franchise and strong market position in selected segments; credible management team. Improving asset quality remains weak in an international context but better than domestic peers.	**The issuer.** Low interest rate environment poses growth and profitability challenges for a retail-oriented bank – Bankia is also seen as even more exposed to net interest income pressure than peers; residual uncertainty around group ownership and structure.
Covered bond legal framework in Spain (+2 notches). Spanish covered bond law meets minimum requirements for full legal framework support.	**Covered bond legal framework.** Absence of dedicated legal provisions for market and liquidity risk mitigated by high legal minimum OC requirements and recourse to full mortgage book as cover pool.
Resolution regime assessment (+4 notches). Covered bonds are excluded from bail-in and have strong systemic importance and stakeholder support.	**Resolution regime assessment.** N/A
Cover pool support (+3 notches). Recourse to the full mortgage book mitigates the still-weak credit quality of the cover pool. Comparatively low exposure to weaker developer loans.	**Cover pool support.** High asset-liability mismatch of 14 years requires ongoing monetisation of cover pool assets in case of an issuer insolvency.

Positive rating-change drivers	Negative rating-change drivers
Issuer/group. Clarification of group and control structure; further clean-up of the balance sheet	**Issuer/group.** Significant deterioration in Spain's sovereign credit strength combined with a continued high exposure. Relapsed recession putting pressure on profitability and asset quality.
Covered bond legal framework. Not applicable as highest rating uplift is already achieved.	**Legal covered bond framework.** Disruptive alignment of the Spanish covered bond framework which depletes CHs recourse to overcollateralisation.
Resolution regime assessment. Not applicable as highest rating uplift is already achieved.	**Resolution-regime assessment.** Significant fall in market share, inability to meet the 'debt buffer', both of which could remove the regulator's incentive and ability to maintain the issuer as a going concern and could negatively impact the rating.
Cover pool support. Not applicable as highest rating uplift is already achieved.	**Cover pool support.** Significant deterioration in the Spanish economy or the house price index, negatively impacting the credit quality of borrowers and recovery values; excessive, unexpected high volume and short-term issuance further exacerbating the maturity mismatch of the covered bond structure.

1. The issuer

Bankia is rated by Scope at BBB+/S-2. Both ratings have a stable outlook.

Bankia is a domestic retail and commercial bank with a strong market share

Bankia originates from the forced merger of seven Spanish savings institutions in 2010. Bankia is entirely focused on its domestic market. It has very strong market shares in the regions of Madrid, the Valencian Community, la Rioja, the Canary Islands and, following the acquisition of BMN, in Murcia, Andalusia and the Balearic Islands. Bankia is also represented in the central regions of Spain, while its presence is more marginal in the northern coastal regions which remain dominated by the regional banks.

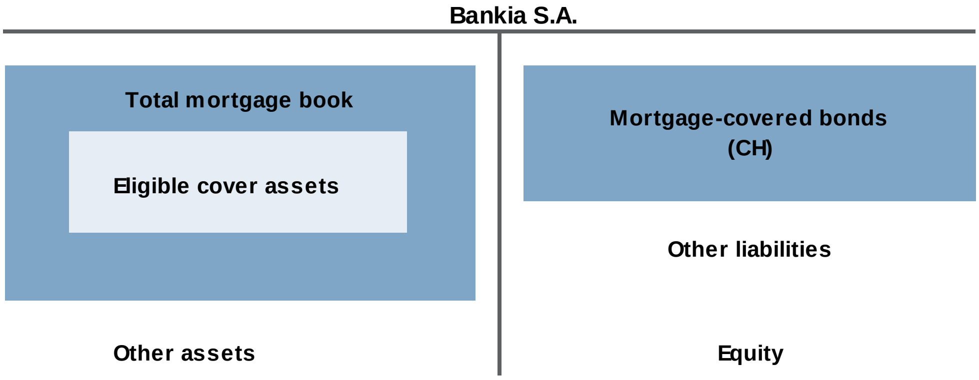
Due to its origins, Bankia's business model has its roots in retail and commercial banking. Its largest segment is retail, which caters to mass-market individuals and small businesses. Larger companies are served by the business banking network. Bankia also offers private banking, asset management and bancassurance products, as well as capital markets solutions, but these remain marginal compared to its retail and commercial bank products.

For further details of Scope's bank credit analysis see our full bank rating report available on www.scoperatings.com.

2. Covered bond structure

On-balance sheet framework – Spanish cover pool concept differs from other European covered bond frameworks

Figure 1: On-balance sheet issuance structure



The Spanish covered bond framework (see Legal Framework Analysis for further details) does not define a dedicated cover pool. Instead, Law 2/1981 from 25 March defines eligibility criteria for the cover assets against which covered bonds can be issued. Eligible mortgage assets are not registered in a cover pool which is ring-fenced upon an insolvency of the issuer. Instead, CH investors have full recourse to the bank's mortgage book – excluding securitised mortgage loans or mortgage loans that are potentially pledged in favour of other covered bond types (bonos hipotecarios). In practice, only securitised mortgage loans might reduce the available collateral, as to date no Spanish bank has established a cover pool for bonos hipotecarios.

3. Covered bond rating analysis

Bankia's AAA/Stable covered bond ratings are supported by a large mortgage book providing for a strong, seven notch cover pool analysis driven support. It also reflects the maximum possible fundamental credit support of six notches.

Our fundamental credit support analysis effectively provides a floor for the covered bond rating at AA+, assuming the issuer's credit profile remains unchanged.

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The current level of OC would also support the full three notches of cover pool support but currently is limited to one notch as the highest achievable ratings have already been achieved. The cover pool analysis effectively can provide the covered bonds with a rating buffer of up to two notches against an issuer downgrade.

3.1. Fundamental credit support

The Spanish covered bond framework and our credit-positive view on the beneficial resolution regime allows us to assign a positive credit differentiation of six notches.

3.1.1. Legal framework

Maximum two-notch rating uplift reflecting supportive legal framework

The current cédulas framework meets the agencies expectation for the maximum two notches of legal framework driven rating differentiation.

The current Spanish covered bond framework builds on individual acts that provide the legal basis for the issuance of covered bonds and their insolvency remoteness[1]. Our analysis focuses on aspects that are relevant for the ability of covered bonds to meet contractual payments on time and in full.

The Spanish covered bond framework does not anticipate a segregation of the cover pool upon insolvency. Instead, CHs have a preferential right to the proceeds of the full mortgage book (not only the eligible cover assets).

1. Ability to continue to make payments after issuer insolvency

In addition to the preferential rights to the cash flows of the whole mortgage book, the law also allows for the registration of substitute assets to facilitate ongoing payments following regulatory intervention – which remains a theoretical benefit as neither Bankia nor other Spanish issuers maintain substitute assets as a permanent support for their covered bonds. The framework also clearly establishes that there is no acceleration of the covered bonds upon insolvency of the issuer. Derivatives registered in favour of covered bonds would not accelerate either. We are not aware of any Spanish issuer that has registered derivatives in favour of covered bond holders to date.

2. Programme enhancements remain available

CHs benefit from a generous mandatory legal OC of 25% – measured against eligible assets (see below for the definition of eligibility). The available OC for CHs is effectively much larger, as the eligible book only provides for an issuance limit and covered bonds have full recourse to the issuer's unencumbered mortgage loan book. As Spanish CHs do not involve a cover pool concept or a special-purpose vehicle, there is no clawback or recharacterisation risk for the available cover assets.

3. Covered bond oversight

The Bank of Spain generally supervises the issuance of covered bonds and compliance with established limits and remedies. The Comisión Nacional del Mercado de Valores monitors issuer compliance, with a specific focus on ensuring that all conditions are met when a new covered bond is issued. In contrast to other countries, there is no independent trustee to ensure compliance with criteria. Furthermore, there is no special administrator to manage the cover pool upon insolvency; the general insolvency administrator also manages the covered bonds.

[1] The main legal provisions can be found in ley 2/1981 (regulating the mortgage market) and the complementary secondary regulation (Decree 716/2009). The insolvency laws are also relevant (ley 26/1988 – Discipline and Intervention on Credit Institutions, ley 22/2003 – Spanish Insolvency act, ley 6/2005 – Reorganisation and Winding up of Credit Institutions and ley 9/ 2012 – the Restructuring and Resolution of Credit Institutions).

4. Other legal framework considerations

In the past, generous levels of OC have protected investors and compensated for those aspects that are no longer best practice in a European covered bond context. The slump in the Spanish mortgage market has placed some of its shortcomings in the spotlight. These include missing updates of loan/value ratios (LTVs) for cover pool assets or less active cover pool risk management.

Covered bond harmonisation positive but uncertainties remain

With the upcoming EU directive to harmonise European covered bond frameworks, the Spanish covered bonds law will be subject to material modifications. Generally, we believe that the European Commission's proposed changes are credit positive, as they will introduce more transparency for investors and require issuers to actively manage their cover pools in order to maintain sound credit quality and a low cash flow risk profile. Cover pools may become better defined and issuers will be required to enhance liquidity and risk management more in line with other European covered bond frameworks. In light of today's full recourse to the issuer's unencumbered assets, the current excessive available OC may reduce when the final directive will be transposed into national law. Cover pool support could be subject to a reassessment if constrained by OC.

5. Definition of eligible assets

Mortgage loan-eligibility criteria

Eligible cover assets comprise first-lien residential or commercial mortgage loans within the EEA, provided the security meets the provisions set out in the Law 2/ 1981.

The law provides eligibility definitions for assets against which covered bonds can be issued. For residential mortgages, the collateral needs to comply with an 80% LTV (a higher LTV is possible provided an additional guarantee or security is provided). For commercial mortgage assets, a maximum LTV of 60% is required. The assets need to have been fully appraised at origination.

Covered bond investors have a preferential claim on covered assets – and also on recovery proceeds if the mortgage loan exceeds the LTV.

6. Substitute collateral

Substitute collateral possible – but not present

The law allows for substitution assets of up to 5% of the outstanding mortgage-covered bonds and eligibility definitions mirror European standards.

3.1.2. Resolution regime and systemic importance

Resolution regime analysis supports maximum credit elevation

Bankia's covered bonds can benefit from extra credit differentiation of four notches, based on our positive assessment of the resolution regime and the systemic importance of covered bonds in general and Bankia as a covered bond issuer. The differentiation reflects the preferential treatment of covered bonds in the event of regulatory intervention with the issuer, our analysis of the resolvability of the issuer and the high systemic importance of covered bonds in Spain. These factors would, in our view, mobilise stakeholders to actively deal with the negative credit implications of a covered bond once its issuer is in distress.

1. Preferential treatment of covered bonds upon regulatory intervention

BRRD translation cofirms that covered bonds are exempt from bail-in

The Bank Recovery and Resolution Directive has been effective in Spain since 20 June 2015[2], and the preferential status of covered bonds upon insolvency has been confirmed. The existing resolution and restructuring framework applicable to Spanish banks, introduced in 2012, already featured most of the provisions and resolution tools stipulated in the Bank Recovery and Resolution Directive. It allowed the use of all available resolution options during the significant restructuring of the Spanish banking sector during the crisis. We note that current practice at that time did not impact holders of covered bonds, demonstrating the systemic importance of this product.

2. Resolvability of the issuer

The question of whether a covered bond is more likely to remain with a going concern institution or whether covered bond investors would, in the event of regulatory intervention, be faced with a (systematic) wind-down of the programme and its issuer, is equally important with regard to the product's preferential treatment. In our view, the latter scenario could have negative repercussions on the ability to maintain the quality of the cover pool.

We are of the opinion that Bankia has a viable business model, a sound refinancing structure and sufficient levels of bail-inable debt which will allow regulators to restructure the bank without impacting its ability to maintain covered bonds as a going concern.

3. Systemic importance of covered bonds

Spain is the fifth largest covered bond country evidencing systemic importance

Covered bonds are actively used by the majority of Spanish banks to fund mortgage lending. The volume of outstanding mortgage-covered bonds regularly ranks among that of the top five countries worldwide. At the end of 2017, EUR 242bn of covered bonds were outstanding and annual issuance stood at EUR 30bn. While trending down, the share of covered bonds as a percentage of GDP is significant at around 20% at year end 2017, compared to a five year average of about 25%. Spanish covered bonds are widely represented in investor portfolios.

During the European debt crisis in particular, new covered bond issuance was used extensively to generate central bank liquidity for banks. Compared to the EUR 30bn issuance in 2017, 2011 and 2012 saw central bank targeted issuance volumes of roughly EUR 100bn in each year. The fact that it was possible to use covered bonds as collateral for the ECB at a time when public debt markets were reluctant to accept new debt securities from Spanish issuers, highlights some of their strategic importance.

4. Domestic stakeholder support

We believe Spanish stakeholders are highly incentivised to maintain covered bond funding as a refinancing option. Practices in place during the restructuring of the Spanish banking sector demonstrate that the resolution or restructuring of an issuer is unlikely to impact its covered bonds. We believe that the ongoing systemic importance of covered bond funding for Spanish banks supports proactive regulatory oversight with a view to maintaining issuers as a going concern. We do not expect the use of resolution tools to negatively impact covered bonds.

[2] Spanish law Ley 11/2015 de recuperación y resolución de entidades de crédito y empresas de servicios de inversión is the local translation of the directive.

3.2. Cover pool analysis

Cover pool provides additional rating uplift to support highest ratings

Bankia's cover pool can substantially enhance the credit quality of the covered bonds, translating into an additional uplift of at least one additional notch on top of the six-notches based on our fundamental analysis. This results in a total credit differentiation of seven notches. Reflecting the current credit quality of the cover pool, we have calculated a rating-supporting OC of about 34%[3].

The cover pool composition demonstrates a low volatility (despite the BMN merger) reflecting the recourse to the full mortgage book. However, covered bonds are managed dynamically, and credit and market risks in the covered bond structure and the supporting OC can change significantly, even within the limits of the legal framework.

Figure 2: Key cover pool characteristics

Reporting date	31 March 2016	31 March 2018
Total cover pool / Eligible assets (EUR bn)	65.2 / 48.6	73.7 / 56.0
Covered bonds outstanding (EUR bn)	32.3	30.2
Current overcolalateralisation	101.60%	144.30%
Minimum regulatory collateral	25%	25%
Duration / WA Maturity of assets (years)	16.9 / 20.6	17.6 / 20.2
Duration / WA Maturity of liabilities (years)	6.6 / 7.0	6.1 / 6.2
Duration gap / WA Maturity gap (years)	10.3 / 13.4	11.6 / 14.0
OC to support current rating	35%	34%
OC to support upon one-notch issuer downgrade	40%	37%
Main cover pool asset type	Full mortgage book comprising mortgage secured residential, commercial loans including loans secured with land	
Number of loans	691,903	876,843
Avg. Loan size (EUR)	94,220	84,029
WA avg. LTV (Residential / Commercial)	57% / 77%	58% / 62%
Top-10 exposure share	n/a	1.50%

Source: Bankia, Scope

3.2.1. Cover pool composition

Lower share of developer loans reflects 2012 balance sheet clean-up following nationalisation

Bankia's cover pool composition reflects its strong focus on residential mortgage lending and moderate market share in commercial lending. We view as positive the low share of developer loans compared to other Spanish issuers. This low share reflects the 2012 clean-up and support received after the bank was nationalised. During nationalisation, most of the non-performing developer loans were transferred to the Sociedad de Gestión de Activos Procedentes de la Reestructuración Bancaria (SAREB, the Spanish government's 'bad bank').

Figure 3: Cover pool composition

Cover pool composition	31.03.2016	31.03.2018
Residential (%)	84.4%	86.6%
Commercial (%)	13.3%	11.0%
Developer and land (%)	2.3%	2.4%
Size (in EUR bn)	65.2	73.7

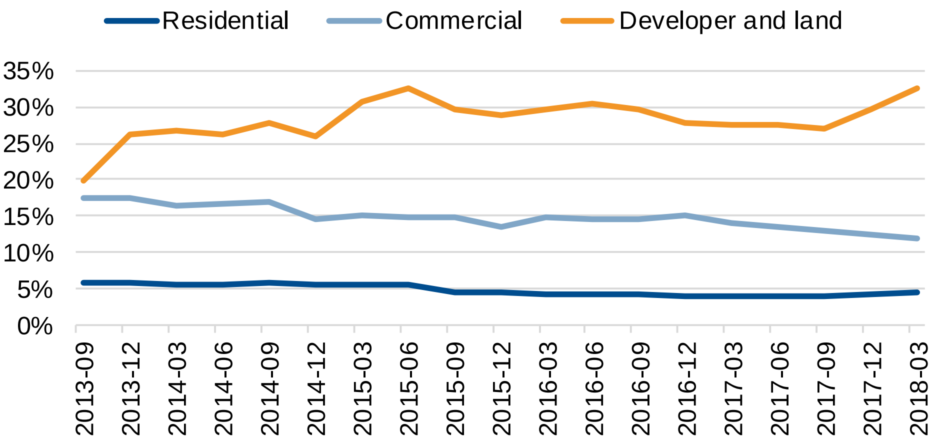
Source: Bankia and Scope

[3] Defined as 'adjusted cover pool assets' over outstanding covered bonds; for the adjusted cover pool balance we have not given benefit to the segment comprising mortgage loans granted to developers and secured by land.

Non-performing assets continuously decreasing – not included in the analysis

Bankia has significantly improved its underwriting, monitoring and workout processes. In combination with the more benign credit environment this explains the sharp reduction in its stock of non-performing loans (to EUR 10.8bn at mid year-end 2018 and including BMN from EUR 20bn at year-end 2013). The share of non-performing loans, however, does vary significantly between individual segments of the mortgage book. In order to reflect the very weak performance during the crisis we have, in the most stressful scenarios, assumed them to be in default without providing recoveries. As a result, we focus on the 'adjusted' cover pool balance in our analysis. For the adjusted cover pool balance we have not given benefit to the segment comprising mortgage loans granted to developers and secured by land.

Figure 4: Delinquency information by segment (90+ dpd)



Source: Bankia and Scope

Collateral values in the bank's LTV calculations are generally made as of the origination date. Refinanced loans, for which updated valuations are used, are the only exception. In our analysis, we generally index the collateral when calculating recovery values (see Appendix I).

High LTV commercial mortgages are not eligible but provide additional proceeds for CHs

We take comfort from the seasoning of the cover pool of about 8.7 years, as the stock of mortgage loans is increasingly underwritten using more prudent criteria. We also take comfort from the demonstrated ability of borrowers to service their loans even in a stressed environment. The LTV on the total portfolio was 59.2% which compares to 58.5% for the residential and 62.0% for the commercial (excl. developers and land) sub-portfolio.

Figure 5: Residential LTV

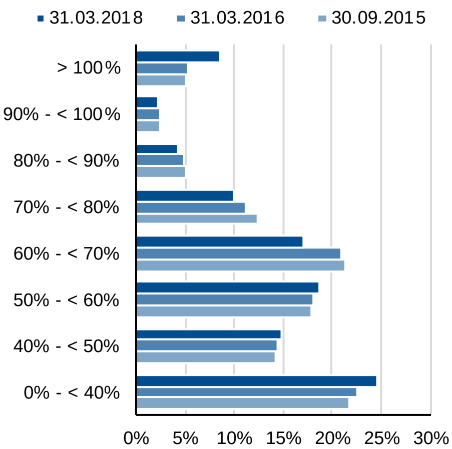
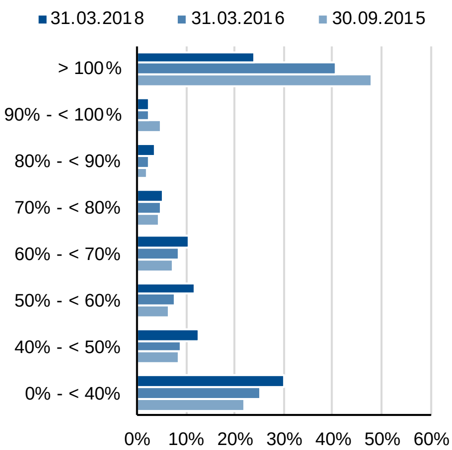


Figure 6: Commercial LTV



Source: Bankia, Scope

Asset eligibility definitions for cédulas only allow issuance against commercial mortgage loans with an LTV of up to 60%. In this context it is noteworthy that the commercial segment comprises only 54.4% of mortgages with a current LTV of below 60%. These are the only mortgages against which CHs can be issued.

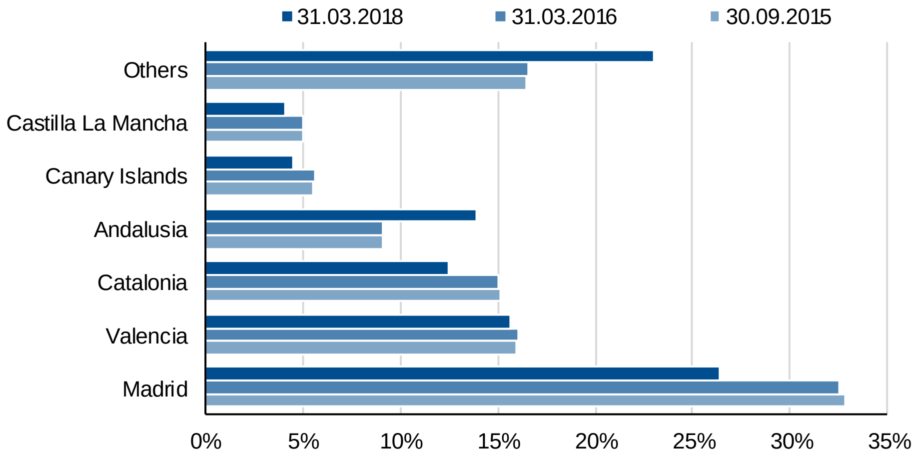
Bankia is not able to issue CHs against the 45% of the commercial segment which comprises commercial loans with an LTV above the threshold. However, CHs have recourse to this collateral which can provide additional proceeds to service the covered bonds.

Granular residential mortgage segment reduces idiosyncratic credit risk

Most of the cover pool is highly granular, with only 2.1% of the residential segment exhibiting loan sizes above EUR 450,000. The commercial portfolio is less granular with the top 20 exposures accounting for 12% of the commercial sub-portfolio. However, in an international context this still remains a moderate concentration.

The lower granularity and higher concentration of the commercial segment combined with the bar belled LTV distribution supports our relatively high coefficient of variation of 60% for the segment. There have been no material changes in the geographic concentrations and the cover pool is well distributed across Spain.

Figure 7: Regional diversity



Source: Bankia, Scope

Bankia's cover pool reflects its domestic retail focus. Its distribution mirrors the business focus of its largest pre-merger institutions, Madrid and Valencia. The geographic split in the portfolio is relevant to our credit analysis, as region-specific house price developments are used to index property values. The indexed values also form the basis for our region-specific and rating distance-dependent market value declines. (For further details see Appendix II Covered bond modelling – technical note).

3.2.2. Credit risk assessment

Moderate credit risk

The performance of Bankia's mortgage book, which supports the covered bonds, continues to improve. This reflects the strengthening macroenvironment, the rebalancing of property markets, improved and tightened underwriting standards, enhanced monitoring aimed at the early identification of weakening borrowers, and workout processes aimed at restructuring mortgage loans rather than foreclosing.

Nevertheless, we consider the asset quality of the cover pool to be moderate in an international context. This assessment primarily reflects the high, but decreasing share of overdue and delinquent loans as well as the less defined cover pool. In our view, covered bond investors are compensated by recourse to the full mortgage book and the significantly higher levels of minimum OC stipulated by the covered bond framework.

Based on the current cover pool composition, we have calculated a credit risk contribution to the rating-supporting OC of about 9.45% of the performing mortgage book.

We have used the individual asset characteristics of the cover pool to benchmark the individual segments to information available on the general performance of similar assets. Performance information for the market is regularly provided by the Bank of Spain, and we have also benchmarked against securitisation transactions rated by Scope that comprise similar asset types.

Figure 8: Credit assumptions

	Residential	Commercial	Weighted average
Segment share	86.6%	13.4%	
DR	15.0%	30.0%	17.0%
CoV	70.0%	60.0%	68.5%
D9 RR	45.1%	40.3%	44.5%
D0 RR	75.2%	67.2%	74.1%

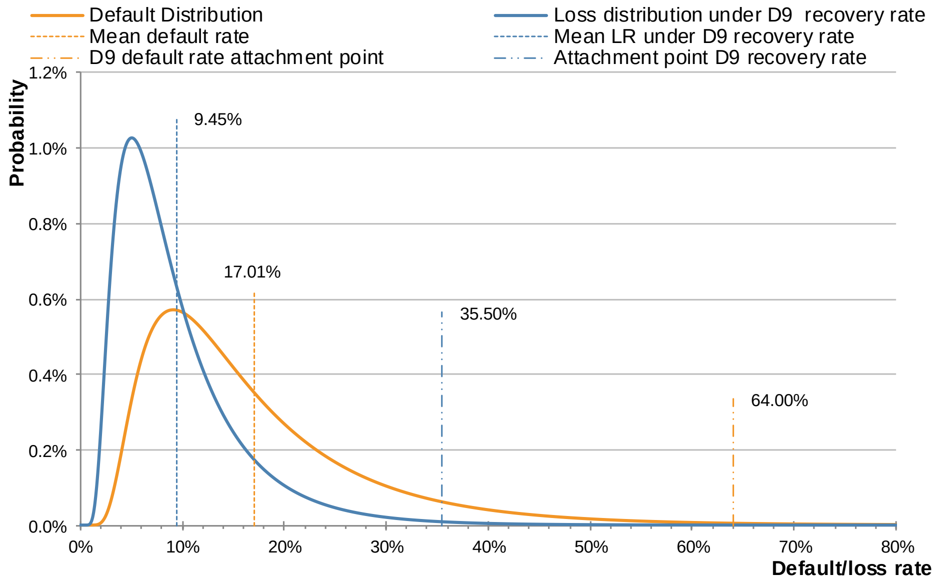
DR - Lifetime default rate; CoV - Coefficient of variation
D9 RR - Recovery rate assumption to support the max uplift

Source: Bankia, Scope

This leads to a credit loss of 9.45%[4] under a D9 recovery rate and 4.4% under a D0 recovery rate.

For Scope's recovery rate analysis, refer to Appendix I: Quantitative analysis.

Figure 9: Default and loss distribution



Source: Bankia, Scope

[4] Credit loss = default rate x (1 – recovery rate)

3.2.3. Market risks

The issuer manages the covered bonds' market risk only in the course of normal bank risk management. This is because the framework does not stipulate specific risk management requirements. Further, there are no derivatives registered in the cover pool. This means that in the event of regulatory intervention, the cover pool would be exposed to both interest rate risk and, should the issuer start to issue foreign currency, foreign-exchange risk.

No dedicated cover pool market and liquidity risk management

The main contributor to OC, however, are maturity mismatches. As common for most Spanish CH issuers, scheduled asset redemptions are not sufficient to service maturing covered bonds in a standalone scenario. This is reflected in the large duration gap of 11.6 years, as the assets' duration is 17.6 years compared to 6.1 years only for the covered bonds. Consequently, if the cover pool were the sole resource for the servicing of the covered bonds, the general insolvency administrator would need to arrange for an ongoing sale of cover assets to meet payments due within the first decade of the remaining life of the cover pool structure.

Figure 10: Cash flow characteristics

Date	Total assets bnEUR	NPV bnEUR	WAM yrs	Duration yrs	% fixed share	%float share
31 March 2016	63.67	75.83	20.64	17.64	1.06%	98.94%
31 March 2018	73.68	89.09	20.16	17.63	4.72%	95.28%

Date	Total liabilities bnEUR	NPV bnEUR	WAM yrs	Duration yrs	% fixed share	%float share
31 March 2016	32.31	34.37	7.03	6.74	75.42%	24.58%
31 March 2018	30.16	35.01	6.20	6.07	70.66%	29.34%

Current OC	144.28%
NPV OC	154.44%

WAM gap	13.97
Duration gap	11.56

Source: Bankia, Scope

Mismatch can be cured by selling cover assets – but these would probably have to be sold well below par, consuming significant amounts of OC

This is also illustrated in Figure 12 which shows the cumulative net cash flows of a 'standalone' cover pool[5]. The resulting negative balance during the first 13 years would accordingly require assets to be sold – likely well below par consuming significant amounts of OC.

The legal framework does not require any formal liquidity provisions as seen in most other covered bond frameworks. These stipulate, for example, the provision of highly liquid collateral which must be registered in the cover pool to cover immediate liquidity needs within the first 180 days. The Spanish framework allows the registration of up to 5% of highly liquid 'substitute' assets to bridge liquidity shortfalls. However, as is typical for the Spanish market, Bankia has not registered any substitute assets in the cover pool. Furthermore, the current Spanish legal framework does not envisage maturity extensions for CHs, all of which are generally issued as 'hard' bullets.

[5] The cash flows in this figure reflect the net proceeds per quarter from maturing assets, as well as covered bonds and interest due. Any previous quarter's balances are carried forward and added to the respective quarter's net position This profile does not incorporate any of the rating-relevant stresses which we apply to the cash flows to reflect credit, market and refinancing risk, nor does it reflect the impact of asset sales.

Figure 11: Redemption profile

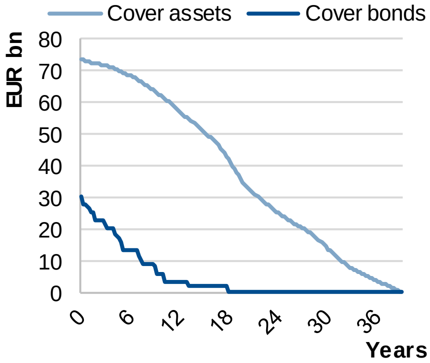
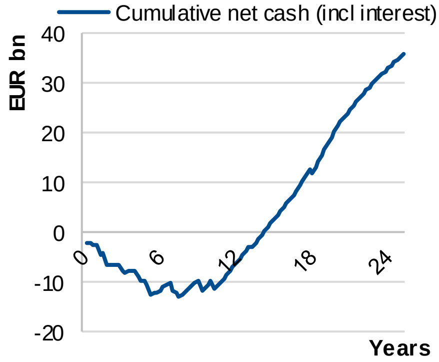


Figure 12: Cumulative net cash flow



Source: Bankia, Scope

We take comfort from the provisions in the legal framework, which stipulate that the insolvency administrator has first recourse to the proceeds from the mortgage book and is required to ensure sufficient liquidity to meet covered bond payments due. The availability of a highly granular cover pool comprised mainly of residential mortgage loans should facilitate a relatively swift sale of cover pool assets – even if they had to be sold at high discounts to their par value.

3.2.4. Interest rate risk

Interest rate risk is moderate, in our view, reflecting both the currently low interest rates and the higher share of floating-rate assets (95.2% of cover assets) than covered bonds issued as floaters (29.3% of covered bonds).

We tested the resilience of the covered bond structure against adverse rate developments using a set of scenarios with rising and falling interest rates (starting at different times) and complemented the stresses with a lower-for-longer interest rate scenario in which negative market rates persist. This most stressful interest scenario is a decreasing rate that converts back to the historical mean after year four.

3.2.5. Foreign exchange risk

There is negligible foreign exchange risk as the majority of both assets and liabilities are denominated in euros.

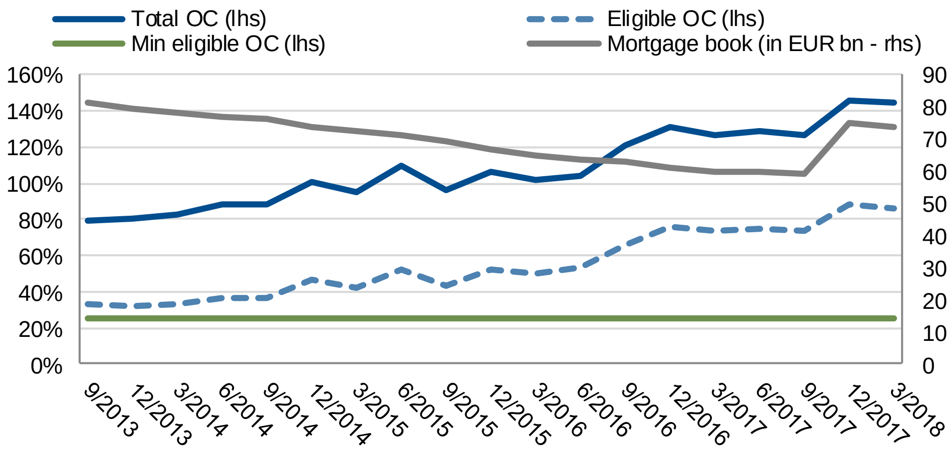
3.2.6. Overcollateralisation

34% OC is needed to support the maximum credit differentiation. Thereof 70% are needed for market risk.

Bankia's covered bond ratings are cover pool-supported ratings and therefore hinge on the issuer's ability and willingness to provide OC above the legal minimum.

Bankia's issuer rating of BBB+ allows us to fully consider available OC in our analysis. Upon a two-notch downgrade, we would seek to identify whether the issuer's capital market communication on its intended OC is sufficiently robust to continue taking available OC into account. Failing this, we would establish a sustainable OC level, against which we would compare the rating-supporting OC in order to determine whether we can maintain the ratings.

Figure 13: Development of overcollateralisation



Source: Bankia, Scope

Available OC taken into account due to Bankia's credit quality

We are not aware of any plans on the part of the issuer that would significantly reduce the mortgage book, which could result in OC levels that would no longer support the current ratings. We have monitored the development of available OC and discussed OC management and the issuance strategy with the issuer. As the CHs do not just have recourse to a dedicated cover pool but rather to the full mortgage book, the most significant change in the volume of available cover assets would be effected either from the sale of cover assets or from the issuance of mortgage securitisations. OC could also be significantly reduced by new CH issuance activity.

Available OC may be reduced when the European covered bond directive is transposed into national law. As a consequence, cover pool support could also be subject to a reassessment if constrained by OC.

3.2.7. Counterparty risk

Covered bonds have significant counterparty exposure to Bankia, which is reflected in the link to the issuer

The covered bonds are significantly exposed to Bankia as the originator, servicer, bank account provider and paying agent.

We believe that the strong alignment of interests between the bank and CH holders ensures that bank accounts would be replaced to mitigate counterparty risk well before any regulatory intervention might prove necessary. Further, the legal covered bond framework establishes that covered bond holders have preferential rights to the mortgage books cash flows upon an issuer insolvency, largely mitigating bank account risk. However, bank accounts relevant for the covered bonds do not benefit from structural mitigation that ensures an account bank is replaced if its credit quality deteriorates.

We expect potential regulatory intervention on Bankia to result in the maintenance of the issuer using available resolution tools. Although exposure to Bankia as the key agent is significant, we do not expect this to severely impact the active management and servicing of the mortgage book.

4. Rating stability

We also check rating stability with regard to current OC, the issuer's credit migration and planned issuances.

4.1. Changes to the issuer assessment

Strength of the cover pool provides a buffer against a change in our credit assessment of the issuer

Based on our fundamental assessment of the Spanish covered bond framework, Bankia's cover pool is, in principle, able to support a credit differentiation for the covered bonds of up to nine notches above our issuer rating on Bankia (see Overcollateralisation section above). Available OC and the current composition of the cover pool means that upon a two-notch deterioration of our credit view on Bankia the issuer would still be able to maintain current CH ratings.

4.2. Changes to overcollateralisation

Reduction of OC to legal minimum would result in a max. one-notch downgrade – as determined by our fundamental assessment

The rating is based on the support provided by the cover pool, thus relying on OC.

The recourse to the full mortgage book means that significant negative changes to OC are only likely if the issuer were to securitise or sell large portfolios of mortgages or issue significant amounts of covered bonds. There is currently no indication that such managed portfolio changes are likely.

An OC reduction to the legal minimum would likely result in a one-notch downgrade of the covered bonds. We would expect a reduction in the legal minimum OC of 25% between the eligible mortgages and the outstanding covered bonds to result in a minimum effective available OC for covered bond investors of about 33% (assuming the proportion between the total and the eligible mortgage book remains constant). With the current cash flow structure, such low OC would only allow six notches of cover pool analysis-based support – the same uplift as currently provided by our fundamental credit support assessment of the legal and resolution frameworks.

5. Sovereign risk

Risk of institutional meltdown, legal insecurity or currency problems not material

Sovereign risk does not limit the ratings on Bankia's CHs. The risks of an institutional framework meltdown, legal insecurity or currency convertibility problems (due to a hypothetical exit of Spain from the eurozone) are currently not material for the rating of Bankia's CHs.

Despite Spain's current positive GDP growth trend, the credit performance of both the issuer and the cédulas will ultimately depend on the effective resolution of fundamental imbalances over the longer term. These imbalances are the high level of public and private debt, the still-large budget deficit, the negative net investment position and high unemployment rate (of 15.2% in August 2018).

6. Data adequacy

Cover pool data only available on a stratified basis – sufficient for Bankia's highly granular cover pool

We consider the data quality to be adequate in light of the high granularity of the cover pool. If detailed information on some credit aspects was not available, we benchmarked the bank's information with market information and made conservative assumptions to compensate. We ensured as far as possible that sources were reliable before drawing upon them but did not verify each item of information independently.

Bankia provided us with public and confidential information on the cover pool composition, mortgage asset performance and relevant cash flow details. We received aggregated cover pool information, including detailed stratification tables for relevant credit characteristics, divided into the relevant segments on a quarterly basis. We complemented information provided on the issuer-specific development of delinquency status and recovery by segment, with public information from the Bank of Spain for the relevant asset segments.

For the cash flow analysis, we generated asset redemption profiles based on the stratification tables. Relevant information on the outstanding CHs allowed us to create the corresponding liability cash flows.

Scope analysts have visited Bankia and conducted interviews with key personnel to understand the bank's origination, monitoring and workout processes. We also discussed key trends relevant for the development of the cash flow profile, including issuance plans.

7. Monitoring

Ratings are monitored regularly

We monitor this transaction using information provided regularly by the issuer. The ratings are monitored on a quarterly basis and reviewed at least once a year, or earlier if warranted by events.

8. Applied methodology

We applied our Covered Bond Rating Methodology for our analysis of the mortgage-covered bonds together with the principles set out in our General Structured Finance Rating Methodology. All rating methodologies are available on Scope's website at www.scoperatings.com.

Appendix I: Quantitative analysis

Credit risk analysis

Lifetime default rate and coefficient of variation

We use issuer-specific performance information on the relevant subportfolios to calibrate our country-specific lifetime default rate assumptions and coefficient of variation for similar asset types. Available dynamic delinquency rates for residential mortgage and corporate loans published by the bank of Spain allow us to determine ‘synthetic vintage’ default data, i.e. default data that captures market asset performance, grouped by asset origination, by year or by quarter.

While synthetic vintages describe the average performance of specific assets from the market, the dynamic delinquency information represents the entire market. The construction of synthetic vintages makes it possible to compare relative average performance over different time periods in an economic cycle.

We compared the delinquency data for the market to Bankia’s 90 days past due and delinquent loan information which the bank reports on a quarterly basis. Using the data available, we established a dynamic relation which we used to adjust the available market data.

Rating distance-conditional market value declines

We derived recovery rate assumptions for the secured portfolio segment by applying our framework for fundamental recovery analysis. This framework involves estimating the current value of the security, on a line-by-line basis, and then applying rating-conditional security value haircuts. These haircuts capture our forward-looking view of the development of real estate markets, as well as assumptions on fire-sale discounts and foreclosure costs. We applied regional-specific, forward-looking security-value haircut assumptions, as shown in Figure 14 below.

D0-level assumptions reflect our expected decline in security values given current market conditions, whereby AAA level assumptions reflect conditions commensurate with historical troughs in the market. Intermediate rating stresses are derived through linear interpolation between the B and the AAA scenarios. For this transaction, we applied a B level security-value-haircut assumption of 25% across all Spanish regions, which is calculated using the following equation:

Expected security-value-haircut = 1 – [(1+ expected market price change) x (1-collateral-specific discount factor)]

Therefore, the expected security-value-haircut = 1 – [(1 + 7%) x (1-30%)] = 25%.

In our view, current real estate prices across the Spanish regions are, in real terms, sustainable in the long term and will benefit from a nominal appreciation in the medium term. We assumed a 7% nominal appreciation in Spanish real estate prices, over a horizon consistent with the average time taken to liquidate collateral upon a borrower’s default. We applied a 30% collateral-specific discount factor which captures estimated foreclosure costs and likely fire-sale discounts on repossessed assets.

We applied the D9 stressed security-value-haircut assumption, which ranges between 47.5% and 62.5% across Spanish regions. This captures the likely decline below the long-term sustainable prices for a real estate market under severe economic stress. The regional differentiation is based on our analysis of the fundamental drivers of future real estate prices, such as regional economic strength and diversity, population dynamics, current house-price affordability (i.e. regional GPD per capita to average regional house prices), and current square-metre prices.

Figure 14: MVD (in %) table

Regions	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
Andalusia	60.0	56.1	52.2	48.3	44.4	40.6	36.7	32.8	28.9	25.0
Aragon	52.5	49.4	46.4	43.3	40.3	37.2	34.2	31.1	28.1	25.0
Asturias	52.5	49.4	46.4	43.3	40.3	37.2	34.2	31.1	28.1	25.0
Balearic Islands	62.5	58.3	54.2	50.0	45.8	41.7	37.5	33.3	29.2	25.0
Canary Islands	62.5	58.3	54.2	50.0	45.8	41.7	37.5	33.3	29.2	25.0
Cantabria	55.0	51.7	48.3	45.0	41.7	38.3	35.0	31.7	28.3	25.0
Castilla La Mancha	50.0	47.2	44.4	41.7	38.9	36.1	33.3	30.6	27.8	25.0
Castilla Leon	50.0	47.2	44.4	41.7	38.9	36.1	33.3	30.6	27.8	25.0
Catalonia	60.0	56.1	52.2	48.3	44.4	40.6	36.7	32.8	28.9	25.0
Extremadura	55.0	51.7	48.3	45.0	41.7	38.3	35.0	31.7	28.3	25.0
Galicia	50.0	47.2	44.4	41.7	38.9	36.1	33.3	30.6	27.8	25.0
La Rioja	50.0	47.2	44.4	41.7	38.9	36.1	33.3	30.6	27.8	25.0
Madrid	52.5	49.4	46.4	43.3	40.3	37.2	34.2	31.1	28.1	25.0
Murcia	57.5	53.9	50.3	46.7	43.1	39.4	35.8	32.2	28.6	25.0
Navarra	50.0	47.2	44.4	41.7	38.9	36.1	33.3	30.6	27.8	25.0
Basque Country	57.5	53.9	50.3	46.7	43.1	39.4	35.8	32.2	28.6	25.0
Valencia	62.5	58.3	54.2	50.0	45.8	41.7	37.5	33.3	29.2	25.0
Rest	60.0	56.1	52.2	48.3	44.4	40.6	36.7	32.8	28.9	25.0

Source: Scope

Key modelling parameters

We apply regional-specific recovery rates based on the composition of the cover pool. We also base the relevant average liquidity premium on the cover pool's composition. The highest stress assumptions only apply in a scenario which, if passed, allows us to assign the maximum credit differentiation between the issuer and its covered bonds.[6]

Liquidity premium: We applied, on average, 250 bps as an additional liquidity premium for the discounting of the Spanish residential mortgage assets and 300 bps for Spanish commercial mortgages. We determined the liquidity premium by analysing the historical trading spreads of other Spanish covered bonds. For setting the above premium we take into account that asset sale would occur on a regular basis making investors comfortable on the credit quality of the cover assets.

Market risk stresses: We assumed deterministic interest rate and foreign exchange stresses in our cash flow modelling. A common framework was applied to establish the stresses. The analysis allows us to establish stresses that equate to the maximum achievable rating uplift.

Interest rate modelling: We tested Bankia's covered bonds against several scenarios with rising and falling interest rates. The covered bonds are most vulnerable to the scenario in which rates decrease after two years to -1% (for two years) and then increase after year four to 5%, as covered bonds are fixed with longer maturities.

This is because 70% of fixed bonds compare to only 5% of fixed assets with the remaining 95% accordingly being exposed to low interest rates.

Foreign-exchange risk modelling: This was not applicable because forex exposure is negligible with 0.3% of non-euro assets. All bonds are denominated in euros.

Prepayment rate assumption: In order to determine the rating, we tested a 0% and a 15% constant prepayment rate assumption for all cover assets. The low prepayment rate scenario is most stressful due to the high weighted average maturity and the large duration gap.

Servicing fee: We apply country- and asset type-specific servicing fees which the cover pool must pay on an annual basis. According to Covered Bond Rating Methodology 25 bps was assumed for residential mortgage loans and 50 bps for commercial mortgage loans (weighted average fee of 28 bps).

[6] The maximum credit differentiation between the rating of the issuer and its covered bond is typically determined by our fundamental assessment of the legal and resolution framework. Our methodology states that the maximum credit differentiation can only be three notches higher than this fundamental uplift. For Bankia, we have determined fundamental support of six notches. According to our methodology, the maximum achievable uplift is nine notches (6+3).

Appendix II: Summary of characteristics

Reporting date	31 March 2016	31 March 2018
Issuer name	Bankia, S.A.	Bankia, S.A.
Country	Spain	Spain
Covered bond name	Cedulas Hipotecarias (CH) Spanish mortgage covered bonds	Cedulas Hipotecarias (CH) Spanish mortgage covered bonds
Covered bond legal framework	Spanish legal covered bond framework	Spanish legal covered bond framework
Cover pool type	Mortgage	Mortgage
Composition	Residential = 84.4% Commercial = 15.6%	Residential = 86.6% Commercial = 13.4%
Issuer rating	not disclosed	BBB+/Stable
Current covered bond rating	AAA/Stable	AAA/Stable
Covered bond maturity type	Hard Bullets	Hard Bullets
Cover pool currency	EUR (100%)	EUR (99.8%)
Covered bonds currency	EUR (100%)	EUR (100%)
Fundamental cover pool support (notches)	6	6
Max. achievable covered bond uplift (notches)	9	9
Potential covered bond rating buffer	1	2
Cover pool/ Eligible assets [EUR bn]	65.2 / 48.6	73.7 / 56.0
Covered bonds [EUR bn]	32.3	30.2
Current overcollateralisation/ Legal minimum OC	101.6% / 25%	144.3% / 25%
OC to support current uplift	35%	34%
OC to support upon a one notch downgrade of the issuer rating	40%	37%
WA Seasoning	7.1 years	8.7 years
Duration / WA Maturity of assets (years)	16.9 / 20.1	17.6 / 20.2
Duration / WA Maturity of liabilities (years)	6.6 / 7.0	6.1 / 6.2
Duration gap / WA Maturity gap (years)	10.3 / 13.4	11.6 / 14.0
Number of loans (total)	691,903	876,843
Average loan size (in EUR of total)	94,220	84,029
Top-10 exposures	n/a	1.5%
Top-20 exposures	1.90%	2.1%
Interest rate type - Assets (Fix / Float)	1.0% / 99.0%	4.7% / 95.3%
Interest rate type - Liabilities (Fix / Float)	75.4% / 24.6%	70.7% / 29.3%
WA_LTV (Whole loan LTV Resi / Commercial)	57% / 77%	58% / 62%
Geographic split (top 3)	Madrid (32.5%) Valencia (16.1%) Catalonia (15.0%)	Madrid (26.4%) Valencia (15.7%) Andalucia (13.9%)
Default measure	Inverse Gaussian	Inverse Gaussian
WA DR	17.7%	17.0%
WA CoV	68.0%	68.5%
WA recovery assumption (D0/D9)[1]	68.5% / 44.1%	75.2% / 45.1%
Current share of loans (total) > 6 month arrears	6.90%	6.40%
IR stresses (max./min.; CCY dependent)	-1 to 10%	-1 to 10%
FX stresses (max./min.; CCY dependent)	N/A	N/A
D9[1] Liquidity premium	260bps	257bps
Servicing fee (mortgage)	29bps	28bps

[1] D0 or D9 denote the stresses commensurate with the rating distanced between the issuer rating and the covered

Scope Ratings GmbH

Headquarters Berlin
Lennéstraße 5
D-10785 Berlin

Phone +49 30 27891 0

Frankfurt am Main
Neue Mainzer Straße 66-68
D-60311 Frankfurt am Main

Phone +49 69 66 77 389-0

Paris
33 rue La Fayette
F-75009 Paris

Phone +33 1 82885557

London
Suite 301
2 Angel Square
London EC1V 1NY

Phone +44 203-457 0 4444

Madrid
Paseo de la Castellana 95
Edificio Torre Europa
E-28046 Madrid

Phone +34 914 186 973

Milan
Via Paleocapa 7
IT-20121 Milan

Phone +39 02 30315 814

Oslo
Haakon VII's gate 6
N-0161 Oslo

Phone +47 21 62 31 42

info@scoperatings.com
www.scoperatings.com

Disclaimer

Scope Ratings GmbH, Lennéstrasse 5, 10785 Berlin, District Court for Berlin (Charlottenburg) HRB 192993 B, Managing Director: Torsten Hinrichs.