Rating Report

Compagnie de Financement Foncier

French Covered Bonds – Obligations Foncières

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RATINGS

Cut-off date	Cover pool	Main cover asset type	Covered bonds*	Rating
30 June 2016	EUR 79.2bn	French mortgage loans and public-sector exposures	EUR 66.3bn	**AAA/Stable**

*Obligations Foncièrs (OF) – traditional French covered bonds with public-sector and mortgage collateral

Scope's covered bond ratings constitute an opinion on 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 the Covered Bond Rating Definitions.

Covered bond rating:

Covered bond rating (long term):	AAA
Outlook:	Stable
Last rating action date:	New

Covered bond rating-uplift above issuer (notches):

CoFF Mixed covered bonds	
Legal framework	**2**
Resolution regime	**4**
Fundamental factors	**6**[1]
Cover pool analysis	**>6**[2]
Used credit differentiation	**3**[3]

[1]Floor for the additional cover pool elevation; [2]covered bonds can be rated up to nine notches above the issuer rating; [3]currently only three notches are needed to achieve the AAA.

Credit Foncier de France S.A.
(Parent rating of the covered bond issuer, ICSR)**:**

Long-term:	AA-
Outlook:	Stable
Last rating action date	New
ICSR and covered bond rating:	Monitored

* The issuer solicited the assigned rating and has taken part in the rating process.

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Rating rationale

Scope Ratings' (Scope) rating of AAA/Stable for the Obligations Foncières (traditional French covered bonds or OF) issued by Compagnie de Financement Foncier S.A. (CoFF; AA-/ StableS-1), a fully owned subsidiary of Crédit Foncier de France S.A. (covered bond issuer parent rating; AA-/Stable), reflect our opinion on the sound credit quality of the issuer. The covered bond ratings are primarily based on the fundamental support factors applicable to the OFs, reflecting the strong investor protection provided by the French covered bond legal framework and the benefits from the resolution-regime analysis. Although the covered bonds only need an uplift of three notches from the issuer rating to reach AAA, the fundamental credit differentiation already provides higher support of up to six notches for the covered bonds. In addition, the covered bonds benefit from a pool of high-quality, low-credit-risk cover assets that are funded with minimal mismatch risk. The result of the cover pool analysis provides additional rating stability, as it supports at least the same rating uplift and the Stable Outlook.

CoFF is a specialised credit institution or société de crédit foncier (SCF). Our credit view on the issuer reflects its full ownership by Crédit Foncier and ultimately the participation into Groupe BPCE's support system.

Fundamental credit support analysis

Our analysis of the French covered bond legal framework confirms that all provisions relevant to establishing and maintaining a high-quality cover pool that remains available after the issuer's potential insolvency are met. The framework also allows a continuation of payments after the issuer's insolvency. The covered bonds benefit from strong regulatory supervision, supporting a two-notch rating differentiation for the legal framework. The OFs also benefit from an additional credit differentiation of four notches, based on our positive assessment of the resolution regime.

The differentiation takes into account: the preferential treatment of covered bonds when a regulator intervenes in the issuer; the resolvability of the issuer; and the high systemic importance of covered bonds in France. These factors would mobilise stakeholders to actively deal with the negative credit implications of a covered bond if its issuer is in distress.

Cover pool support analysis

The cover pool provides sufficiently high uplift and supports the assigned ratings in line with the fundamental uplift. The current overcollateralisation provides the OFs with rating stability if the issuer was downgraded. The identified asset credit risks are contained and reflect the sound underwriting and asset-selection processes involved when the cover asset is acquired from the parent. The predominantly domestic residential-mortgage sub-portfolio comprises the majority of the cover pool. Its credit quality benefits from an average indexed loan-to-value (LTV) of 75% and good credit performance of the French mortgage borrowers. A high proportion of the mortgage portfolio also benefits from public sector guarantees that support very high recoveries in case a borrower defaults.

Asset credit risk in the public-sector portfolio benefits from the credit quality of the obligors, which we mainly consider to be of investment grade quality. The portfolio is highly granular; 70% of domestic exposures are well spread throughout France and across the various levels of sub-sovereigns (e.g. regions, departments and municipalities). The credit analysis takes into account that the high credit quality public-sector borrowers are strongly interconnected, i.e. the credit quality of the public-sector sub-pool is susceptible to changes in the credit quality of the French public sector.

CoFF's covered bond programme is fully hedged against foreign exchange risks and has a low sensitivity to interest rate movements. We also observe that the internal cash-flow-matching requirements, including the commitment to extend the short-term liquidity coverage to one year, result in low scheduled asset-liability mismatches. In addition to the relatively small size of the mismatches, we take comfort that these generally only occur in the medium-term, giving CoFF sufficient time to address them if they arise.

Sovereign risk

We do not consider the credit risk of the Republic of France as a constraining factor for the covered bond rating. Despite this, the cover pool comprises French public-sector exposures, and a portion of the mortgage collateral also benefits from the credit support provided by sovereign guarantees. We have incorporated structural challenges in France into the credit assessment of the underlying collateral. Legal uncertainty or currency-convertibility issues are immaterial for the ratings. As a result, identified collateral risks are mitigated by additional overcollateralisation, and the covered bonds can be rated higher than our credit view on the France.

Ratings apply to all covered bonds issued by the SCF, regardless of whether they are issued through standalone documentation or under an issuance programme.

Stable Outlook

The Stable Outlook for CoFF OFs reflects: i) our Stable Outlook for the issuer and its status within the BPCE group; ii) the lack of indication that the credit-positive support from our fundamental support is likely to alter, or that the systemic importance of French covered bonds would significantly decline; iii) the ongoing availability of sufficient overcollateralisation, which protects against adverse changes in the collateral asset quality and cash flow structure. A downgrade of the covered bonds might only occur if the issuer was downgraded by more than three notches and the supporting overcollateralisation reduced.

Our outlook also reflects our expectation that that the issuer does not plan to change its prudent risk-management strategies or that the high importance of OFs as a funding source for Crédit Foncier will alter. We also do not expect changes to the willingness and ability of CoFF to continuously provide sufficient overcollateralisation to support the very strong credit quality of its covered bonds.

Contents

RATING DRIVERS AND MITIGANTS

Positive	Negative
The issuer. Dedicated role of the SCF for Crédit Foncier and the BPCE group; strong internal guaranty and solidarity system within the BPCE group.	**Issuer/sponsor.** Low-for-longer interest rates pressures profitability. The group's inability to swiftly reduce capacity and costs; concentration on the domestic real estate market and domestic public-sector lending make the parent vulnerable to a regional economic downturn.
Covered bond legal framework. French covered bond laws address all rating-relevant aspects, allowing us to grant the full legal-framework uplift.	**Covered bond legal framework.** N/A
Resolution-regime assessment. French covered bonds are excluded from bail-in; we view the issuer as resolvable; French covered bonds have strong systemic importance. With stakeholders continuously working to improve the framework, we can provide the highest resolution-regime support for the rating.	**Resolution-regime assessment.** N/A
Cover pool support: sound credit quality. The credit quality of the public-sector sub-portfolio benefits from the obligors' good credit quality and high granularity; the mortgage book is also highly granular and the credit support provided by either mortgage collateral or guarantees mitigate final losses. Active market- and liquidity-risk management significantly reduces risks in the case of a stand-alone wind-down of the cover pool.	**Cover pool support.** N/A

Positive rating-change drivers	Negative rating-change drivers
The issuer/group. Significant reduction of excess capacity and a lower cost base; increased cross-selling and higher profitability could further increase the issuer's credit quality and, vice-versa, the resilience of the covered bonds pool against negative changes in the issuer's rating	**The issuer/group.** Signs of weakening cohesiveness and integration into the BPCE group combined with unexpected changes to the guaranty and solidarity system; weakening credit quality of BPCE, to which the issuer rating is aligned, as well as atypical negative results for Crédit Foncier**.**
Cover pool support. Upon a significant downgrade of the issuer, the cover pool can provide an additional credit differentiation of up to nine notches between the ratings of the OF and the issuer, provided there is sufficient overcollateralisation. The credit quality of the cover pool can stabilise the covered bonds' credit quality, even upon a significant deterioration of the issuer's credit quality.	**Cover pool support.** Significant deterioration of French public finances impacting the credit strength of the public-sector borrowers, and/or retroactive changes to the subsidy system; significant deterioration of the economic environment increasing the borrower's probability of default and a significant price drop of mortgage collateral; changes in the prudent liquidity and market risk strategies and a significant reduction in supporting overcollateralisation
	Covered bond legal framework. Adverse developments of the legal framework could reflect negatively on the covered bond rating. The current level of overcollateralisation provides a good buffer, should the fundamental support diminish
	Resolution-regime assessment. A significant decrease of the systemic importance of covered bonds would reflect negatively on the covered bond ratings by reducing the fundamental support. The current overcollateralisation provides a good buffer against adverse developments of the resolution regime.

THE ISSUER

CoFF's credit quality is continuously monitored and is the basis for the covered bond rating

CoFF is the dedicated issuer of the covered bonds that are used by the Crédit Foncier group for wholesale capital market financing. CoFF is wholly-owned by Crédit Foncier, which is a fully-owned subsidiary of Groupe BPCE (AA-/Stable).

The credit strength of Crédit Foncier and CoFF (both AA-/Stable) are fully aligned and are based on our credit view of BPCE.

CoFF's credit quality reflects the BPCE group's guaranty and solidarity system

All affiliated French regulated credit institutions (FRCI) within the BPCE group, including CoFF, benefit from an internal guaranty and solidarity system. BPCE is legally obliged to guarantee the liquidity and solvency of its FRCI affiliates. BPCE has established a joint solidarity fund under the French Monetary and Financial Code, which has approximately EUR 1.3bn available for immediate distribution (as of 30 June 2016). In addition, BPCE states that the aggregated Tier 1 capital of the networks Banque Populaire and Caisse d'Epargne can cover the financial failings of any affiliated FRCI. As of 30 June 2016, the combined Tier 1 capital was around EUR 40.1bn.

BPCE has already provided support to safeguard the liquidity and solvency of its affiliates, including a EUR 1.5bn capital increase for Crédit Foncier in late 2011.

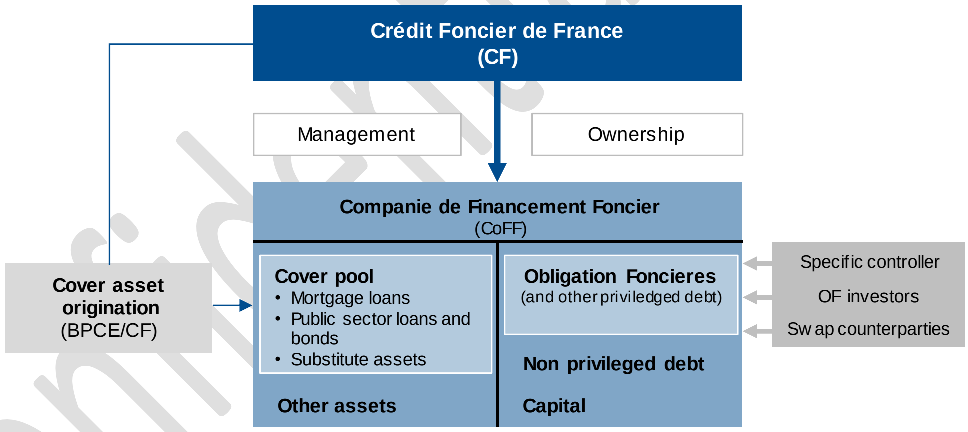
Our credit view reflects the stable and generally predictable financial fundamentals of the BPCE group, as well as its low-risk business model, anchored mostly in domestic retail banking and financial services. BPCE holds a leading position in France's domestic-banking and financial services market.

For further details on CoFF's credit assessment see our credit analysis available at www.scoperatings.com

COVERED BOND STRUCTURE

Specialised covered bond bank (SCF) as issuer

Figure 1. On-balance sheet issuance structure



CoFF, as an OF issuer, operates in the form of a société de crédit foncier (SCF). The French covered bond framework allows issuers to operate as specialist banks. Most of CoFF's operations are provided by its parent, Crédit Foncier, and these activities are governed by service-level agreements. The issuer needs to independently maintain its compliance with regulatory requirements and is independently supervised (see Legal Framework Analysis for further details).

COVERED BOND RATING ANALYSIS

Covered bond rating can equally be supported by fundamental support and the cover pool

The positive credit differentiation between the bank and its covered bonds primarily reflects that recourse to the cover pool is highly unlikely due to the sound credit strength of the issuer and the six-notch credit differentiation established in the fundamental support analysis. The cover pool provides rating stability in case of an issuer downgrade.

The available overcollateralisation mitigates residual credit, market and liquidity risks commensurate with the current credit quality of the OFs.

COVER POOL ANALYSIS

We analysed CoFF's cover pool and cash flows as of June 2016. In addition, as covered bond programmes are managed dynamically, we have reviewed previous cover pools to understand the stability of its credit quality. During the observation period CoFF's strategy did not materially change and the credit profile remained stable.

CoFF's cover pool comprises domestic public-sector and domestic residential-mortgage exposures. The legal framework applicable to OFs does not prescribe a dedicated mortgage or public-sector cover pool, but allows a mixture of both asset types.

No significant top obligors' exposure; moderate mismatch risk

Figure 2. Characteristics of the cover pool and covered bond structure

Reporting date	30 June 2016
Cover pool [EUR bn][1]	79.2
Covered bonds [EUR bn][1]	66.3
Current OC (Provided[2]/min. regulatory OC)	21.5%/ 5.0%
Duration/WAM (cover pool)[2]	9.2 years/ 9.8 years
Duration/WAM (covered bonds) [2]	7.4 years/ 8.0 years
Mismatch[2]	1.8 years/ 1.8 years
OC to cover for credit risk at current uplift (Public-sector/ mortgage)	1.46%/ 0.37%
OC to support AAA at current rating/ OC to maintain AAA upon a one notch downgrade	CoFF (AA-): 4.0%/ CoFF (A+): 10.0%
Main cover asset type	Mortgage and public-sector exposures
Number of loans (Pub. sector/ mortgage pool)	11,506/ 612,781[3]
Top-10 exposures (pub. sector sub-pool) Top-20 exposures (pub. sector sub-pool)	26.3% 33.9%
Weighted average cover pool obligor assessment (pub. sector)	a-
Geographic split (top 3) mortgage/ pub. sector	97.9% (France) / 71.1% (France) 1.9% (Belgium) / 10.3% (Italy) 0.2% (Netherlands) / 5.4% (USA)

[1] Based on accounting data – data used in the analysis might differ due to impact of hedges and other analytical adjustments; [2] Based on post-swap cash flows, excluding prepayments; OC: overcollateralisation; WAM: weighted average maturity; [3] Mortgage sub-pool includes residential and commercial mortgage loans
Note: Calculation of required OC disregards the fundamental support from the legal framework and the resolution regime.

Figure 3. Cover pool composition

Asset type	% of sub-pool
Mortgage	49.4%
Public-sector	42.2%
Substitute	8.4%

Note: For the credit analysis we have reclassified the EUR 6.8bn of substitute assets to either the public-sector segment or the mortgage segment reflecting that about EUR 6.6bn are short term, but mortgage-secured bank loans.

Mortgage sub-pool credit quality

Stable and sound credit quality of the mortgage collateral, reflecting dual support

The sound credit quality of the obligors in the mortgage sub-pool (49.4% of the cover pool) is supported by high granularity, and the pool composition has remained relatively stable. The absolute contribution of the mortgage assets to the cover pool credit loss is about 0.4%, after applying stresses that provide support for an additional three-notch rating uplift.

The credit performance of CoFF's mortgage book not only benefits from recoveries of the available collateral (either as 'caution' or a mortgage) but also from additional support in the case of government-supported mortgage products (guarantees provided by the government via the Société de Gestion des Financements et de la Garantie de l'Accession Sociale à la propriété or SGFGAS). Commercial real estate lending is less important and primarily focused on social housing.

Figure 4. Key mortgage credit segments

Mortgage segments	June 2016: % of the mortgage pool
Guaranteed mortgages	41.8%
Standard mortgages[1]	38.3%
Buy-to-let mortgages[1]	18.9%
Commercial mortgages[1]	1.0%

1 Segment weights after analytical adjustments

For the credit analysis, we examined vintage data provided by CoFF for the three main segments that constitute the mortgage portfolio (guaranteed mortgages that benefit from additional public sector support, standard mortgages, and buy-to-let mortgages).

Vintage data used as the basis for our default and recovery analysis

The analysed data provides information on the credit performance of annual origination vintages between 2000 and 2015[1], which contains several periods of economic stress.

We have used the '90 days past due' annual vintage series to calculate the lifetime default rates and the coefficient of variation of the '90 days past due' default rates for each segment. We have extrapolated annual vintage series to address the risk horizon of the sub-pool, accounting for the term structure implicit in the credit quality of such a series. To establish weighted average credit measures for the whole mortgage segment, we have considered the three portfolio segments to be perfectly correlated[2]. We derive the coefficient of variation for the mortgage segment from the intra-segment default volatility. Similarly to the analysis of the lifetime default rates, we have used the issuer's recovery vintages to establish our view on the recovery expectations for our base case recovery.

Figure 5. Segment credit characteristics

	Guaranteed mortgages	Standard mortgages	Buy-to-let mortgages	Weighted average
% of sub-pool[1]	41.8%	39.3%	18.9%	100.0%
DR[2]	10.6%	8.1%	4.5%	8.5%
CoV[3]	16.8%	35.3%	29.0%	24.6%
BC RR[4]	N/A	N/A	N/A	92.8%

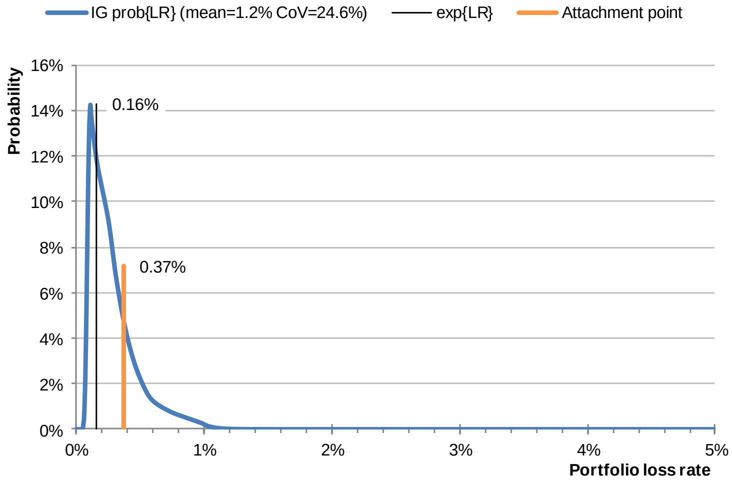
[1] after analytical adjustment; [2] DR – Lifetime default rate; [3] CoV – Coefficient of variation; [4] BC RR – Base case recovery rate (D0); for the max rating distance (D9) this translates into a recovery expectation of 55.7%

To calculate a loss rate we also applied cure rates to the expected defaults. Cure rates reflect that some obligors become performing again and do not roll into a hard default – which then requires a recovery procedure. Cured delinquency positions repay all overdue principal and interest, and become back current in the cash flow analysis.

We incorporate cure rates in our cash flow tool to reflect the impact on the covered bond programme's stressed cash flows. All defaults (hard defaults as well as 'cured' delinquencies) result in lower expected cash flows and eventually might require a sale of cover assets to meet covered bond redemptions.

[1] Data from more current vintages do not exhibit a significantly different behaviour compared to the analysed vintages, but have not been used for the quantitative analysis.
[2] This 'perfect correlation' assumption is valid, due to common origination standards. This calculation combines the coefficients of variation of the different portfolio segments.

Figure 6. Loss distribution for the mortgage portfolio



Weighted average '90 days past due' default rate of about 8.5%, cure rate of 30%, coefficient of variation of 24.6%, and high recoveries result in a credit risk contribution of about 0.4% to the supporting overcollateralisation

Cover asset origination and servicing

Scope believes that the underwriting standards for the cover pool assets are adequate and prudent. CoFF regularly purchases mortgage cover assets on an arm's length basis from its parent and benefits from a two-stage selection process. The first selection is applied when new loans are originated in the parent's normal course of business. The parent already applies prudent underwriting standards and benefits from longstanding experience in its niche markets.

CoFF thereafter selects eligible cover assets and generally does not acquire the full production, effectively applying positive selection on loans with above-average origination scores. Also, back-book loans are only acquired if they demonstrate an acceptable performance history and score. For newly acquired loans, the SCF also benefits from performance guarantees that ensure early defaults do not impact the SCF.

We further believe that the Crédit Foncier group's monitoring processes and early-delinquency management processes are highly efficient in dealing with weak obligors. This is also evident in the recovery data. The high recoveries, reflect an efficient workout of the collateral and/or the ability to call on guarantees. The low rejection rates are also evidence that the issuer adequately manages all necessary documents needed to call upon the guarantee.

Based on our analysis of the issuer's processes and its stability, we consider the issuer's delinquency and recovery vintage data to be valid.

Cover pool distribution by loan size

Granular mortgage segment reduces idiosyncratic credit risk

The mortgage segment is highly granular; the 612,781 mortgage loans have a weighted average loan balance of EUR 62,947, which reduces the impact of individual defaults on the cover pool.

Cover pool distribution by LTV

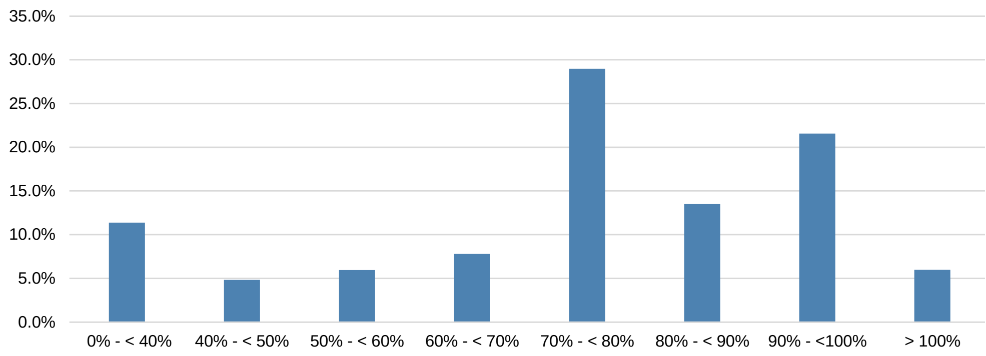
Commercial mortgages only comprise 1% of the mortgage pool and have a low average LTV of 26%, resulting in limited final losses

Collateral values in the bank's LTV calculations reflect an annual revaluation using a granular indexation, which allows region-specific developments of mortgage markets to be captured in the data. We primarily focus on the residential section, as the commercial segment is minimal (1%) with a low average LTV of 26%, significantly shielding the cover pool from losses if a borrower defaults.

We do not view mortgage loans with LTVs greater than 80% as credit-negative, which make up around 41% of the cover pool. While the framework general stipulates an LTV of 80% for residential mortgage loans, mortgage loans with higher LTVs reflect the existence of additional state guarantees that allow the financing of an LTV of up to 100%. Borrowers under the programme benefit from higher affordability due to lower interest rates and the issuer benefits from the state guarantees that cover any potential losses.

Delinquent loans or loan portions in excess of LTV limits can be kept in the cover pool. These loans are not eligible, but the covered bonds also benefit from the overcollateralisation from such loans, reflecting their senior secured status. Observed default rates do not significantly differ between standard mortgages and guaranteed mortgages, the latter of which are typically granted to low-income households.

Figure 7. Indexed LTVs



Distribution by occupancy type

Owner-occupied properties make up more than three quarters of the residential sub-pool

Owner-occupied properties make up more than three quarters of the residential sub-pool supporting low default rates for those borrowers. Buy-to-let mortgages account for 18.9% of the sub-pool. Prudent underwriting has been evidenced in the issuer's vintage data (see Figure 5) where lifetime default rates for this sub-segment have been below the remainder of the segments.

Geographic distribution of the cover pool

No geographic concentration

CoFF's cover pool is well diversified across France. We have not applied stresses for geographic concentrations and there were no credit-relevant aspects that would warrant a different analytical treatment for non-domestic mortgages. The majority of non-domestic mortgages were originated in Belgium (1.9%), in the normal course of the issuer's business.

Figure 8. Geographic split of residential mortgages

Top regions	June 2016 % of sub-pool
Ille-de-France	27.0%
Provence-Alpes	8.8%
Rhône-Alpes	8.2%
Aquitaine	6.3%
Midi-Pyrénées	5.5%
Languedoc-Roussillon	5.5%
Belgium and Netherlands	2.0%
Others (below 5%)	36.8%

Public-sector sub-pool credit quality

Average credit quality, at 'a minus', is highly granular and focused on France

We view the public-sector sub-pool (42.2% of the cover pool as of 30 June 2016) to be of sound credit quality. The sub-pool is highly granular, but strongly comprised of French sub-sovereign exposures. We assess the average credit quality of the obligors at 'single a minus' and assume an expected loss rate of about 1.5% for the sub-pool.

Public-sector sub-pool to further reduce in importance over time

We understand that the importance of the public-sector portion of the cover pool could gradually decline over time. In 2011, the issuer placed its international public-sector lending portfolio in 'run-off', and its domestic public-sector lending is also expected to reduce going forward. We do not expect disruptive changes to the asset composition, but rather a gradual transition due to the long maturity of most exposures and the managed wind-down. In itself, the wind-down of the international sub-portfolio will further increase the focus on French public-sector entities, but we do not expect credit-negative implications on our expectations from the greater shift towards mortgage assets.

Figure 9. Distribution of public-sector sub-pool by credit quality

Credit equivalent*	June 2016% of sub-pool
aaa	2.1%
aa	30.0%
a	32.5%
bbb	28.2%
Non-IG	7.2%
Weighted average	a-

*Scope credit assessments

CoFF's public-sector credit analysis used as the basis for our assessment – but adjusted to reflect Scope's credit view on the obligors

To establish a credit view on the public-sector sub-portfolio we reviewed the underwriting of CoFF and Crédit Foncier, their credit analyses and resulting credit classifications. We have identified the key credit drivers in the issuer's credit analysis, as well as factor weightings, which allow us to make necessary adjustments. The adjusted issuer assessments reflect Scope's view on the credit quality of the French sub-sovereign exposures and the international public-sector exposures.

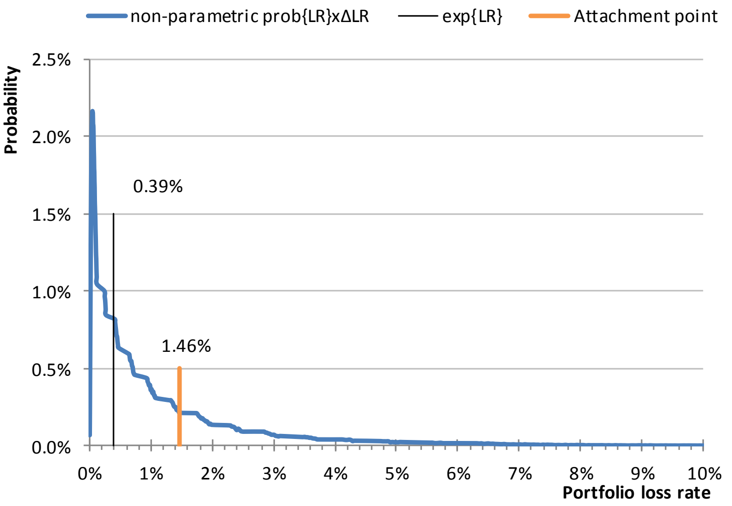
We have analysed the public-sector sub-pool exposures on a loan-by-loan basis. If obligors benefit from an additional guarantee we used the guarantor's credit assessment, which is of stronger quality. We generally consolidated the exposures to 'risk-representing entities'. In the public-sector analysis we also applied obligor-type-specific stressed recovery rates for each exposure. To assess whether the cover pool can support the maximum rating distance of nine notches between the issuer and the covered bond rating, we applied a weighted average recovery rate of 62.9% to the public sector sub-pool. For lower uplifts we linearly scale up the recovery to reflect the low observed defaults in this segment. To support the current three-notch uplift we have applied a weighted average recovery rate of 86.7%.

We have estimated an absolute expected loss contribution of about 1.5% to the cover pool credit loss for the public-sector sub-pool as of 30 June 2016. The coverage of these credit losses allows the cover pool to support the same uplift as provided by the fundamental support analysis.

We derived a default distribution for the cover pool using name-by-name credit assessments and applied a correlation framework[3]. From this default distribution, we derived a loss distribution (see Figure 10), which accounts for the weighted average recovery assumptions we have assigned to the sub-pool.

Sound credit quality results in a low expected loss of 1.5% for the public-sector to support the three-notch rating uplift

Figure 10. Loss distribution for the public-sector portfolio



Cover pool distribution by loan size

CoFF's public-sector pool benefits from a relative high granularity, and the top obligors' exposure is moderate. The sub-pool consists of more than 11,000 loans, which reduces to

[3] See Appendix II for further details

about 4,200 individual exposures after consolidation.The top-10 borrowers comprise about one-quarter of the sub-pool, while the top 20 comprise one-third, which is a moderate concentration compared to other public-sector cover pools.

Top 20 obligors comprise only one-third of the sub-pool and have a slightly better credit quality than the average cover pool.

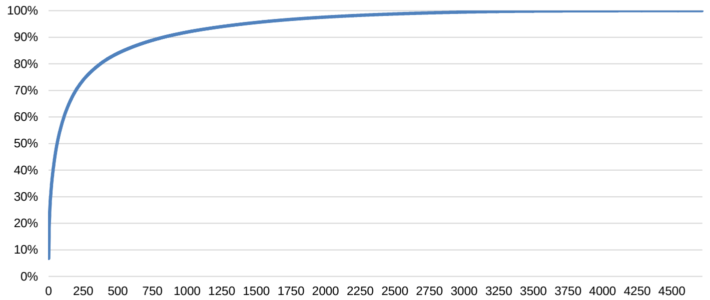
Figure 11. Top-20 cover pool exposures

	Type of exposure	Country	Scope credit assessment	in % of sub-pool	Sub-pool cumulative
1	Sovereign	Italy	bbb	6.8%	6.8%
2	Sovereign	France	aa	4.6%	11.4%
3	Sub-sovereign	Japan	a+	3.5%	14.9%
4	Sovereign-guaranteed	France	aa	3.2%	18.2%
5	Federal state	USA	aa	1.8%	20.0%
6	State-guaranteed bank	Switzerland	aaa	1.6%	21.6%
7	Sovereign-guaranteed	France	aa	1.2%	22.8%
8	Federal state-guaranteed	Canada	a+	1.2%	24.1%
9	Sovereign	Poland	a-	1.2%	25.2%
10	Sub-sovereign	France	a	1.1%	26.3%
11	Federal state	USA	a-	1.1%	27.4%
12	Sub-sovereign	Switzerland	a+	0.9%	28.3%
13	Sub-sovereign	France	a-	0.8%	29.1%
14	Sub-sovereign	Italy	bbb	0.8%	29.9%
15	Sub-sovereign	France	a+	0.7%	30.6%
16	Sub-sovereign	France	aa	0.7%	31.3%
17	Sub-sovereign	France	aa	0.7%	32.0%
18	Sub-sovereign	France	a-	0.7%	32.6%
19	Sub-sovereign	Italy	b	0.6%	33.3%
20	Sub-sovereign	France	a-	0.6%	33.9%

With a weighted average credit quality of 'single a', the top borrowers have a slightly better credit risk profile compared to the remainder of the sub-pool.

The public-sector portfolio has moderate concentration risk. The obligor diversity is equivalent to that of a uniformly distributed portfolio of 84 obligors (calculated as the inverse of the sub-pool's Herfindahl index).

Figure 12. Cumulative distribution of the sub-pool by loan size



The level of diversification generally shields the sub-pool from the impact of single-name credit events. At the same time, most obligors are strongly dependent on the development of French public sector finances. A deterioration of the French sovereign's credit quality and the economic environment will therefore have knock-on effects on the credit quality of most exposures in the sub-pool.

Geographic distribution of the cover pool

CoFF's strong and increasing focus on self-originated, domestic public-sector lending is evidenced by the sub-pool's geographic composition – mostly focused on French obligors. In most cases, international exposures originated from on the secondary market, and, reflecting the managed 'run-off', their relative share is expected to further reduce over time.

Focus on self-originated French exposures supports cover pool's credit quality

Figure 13. Geographic split of the sub-pool

Country	June 2016 % of sub-pool
France	71.1%
Italy	10.3%
USA	5.4%
Japan	5.2%
Switzerland	3.6%
Other	4.4%

Distribution by obligor type

Focus on regional sub-sovereigns, municipalities and other lower-tier guaranteed public-sector exposures

CoFF focuses mainly on sub-sovereigns and lower-tier public-sector entities. In our view, the credit quality of lower-tier sub-sovereigns is typically lower than that of the respective sovereign. However, the cross-support systems, as well as supervision over such entities, often limits significant deterioration, effectively resulting in a credit floor for these guaranteed exposures.

Figure 14. Split by obligor type

By public-sector obligor type	June 2016 % of sub- pool
Sovereign and sovereign-guaranteed	17.9%
Sub-sovereigns	24.5%
Municipalities	22.7%
Other eligible public-sector exposures	35.0%

Cash flow characteristics

Moderate interest and no foreign exchange risk:
Assets: 61% fixed; 39% floating
OFs: 45.3% fixed; 54.7% floating

CoFF's covered bond programme maintains low risk cash-flow. Market and liquidity risks are mitigated by CoFF over and above what is required by the legal framework. Internal policies result in such low scheduled asset-liability mismatches that they generally only occur in the medium term.

Figure 15. Post-swap asset-liability profile as of June 2016

Asset data	Total Assets	Net Present Value	WAM (Principal)	Duration	Fixed Assets	Fixed in % of CCY	WAM (Principal only)	Duration	Floating Assets	Floating in % of CCY	WAM (Principal only)	Duration
Total Assets	79,238,602	98,188,484	9.82	9.19	48,335,429	61.00%	9.90	9.15	30,903,173	39.00%	9.69	9.28

Liability Data	Total Liabilities	Net Present Value	WAM (Principal)	Duration	Fixed CB	Fixed in % of CCY	WAM (Principal only)	Duration	Floating CB	Floating %	WAM (Principal only)	Duration
Total Liabilities	65,203,111	70,027,173	8.00	7.42	29,541,590	45.31%	6.34	6.16	35,661,521	54.69%	9.37	8.62

Market risk exposure

CoFF has introduced additional risk-mitigating measures, which significantly reduce the impact of market risk (interest rate and foreign exchange risk). As the derivatives are part of the cover pool, covered bonds will remain largely isolated from adverse market risk movements – even in the case of regulatory intervention against the issuer. Residual interest rate risk is limited, in our view[4].

We have applied our methodology to identify the sensitivities of the cover pool against adverse changes in interest rates. Scenarios in which interest rates maintain their levels, or fall even further, result in the most adverse impact in our cash flow analysis.

Asset-liability mismatch risk

Figure 16 illustrates the amortisation profile of the public-sector and mortgage book against the redemption profile of issued covered bonds. Figure 17 illustrates the cash flow profile of a 'standalone' cover pool – that is, the net proceeds per quarter from maturing assets, as well as covered bonds and interest due.[5]

Figure 16. Asset and liability redemption profile

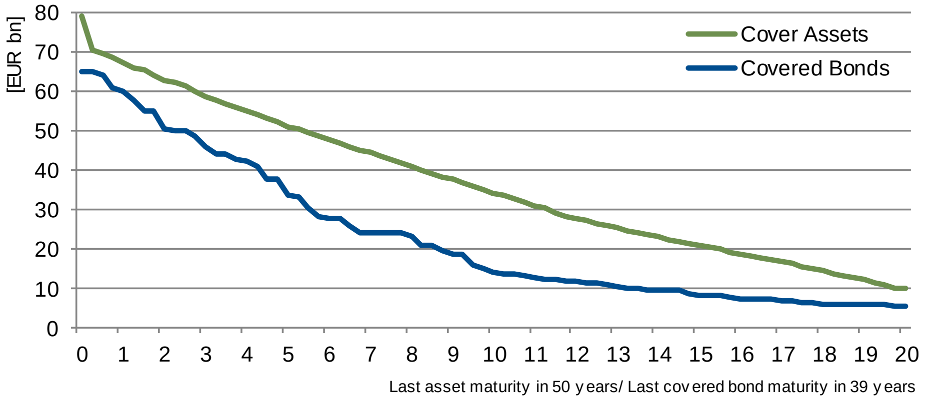
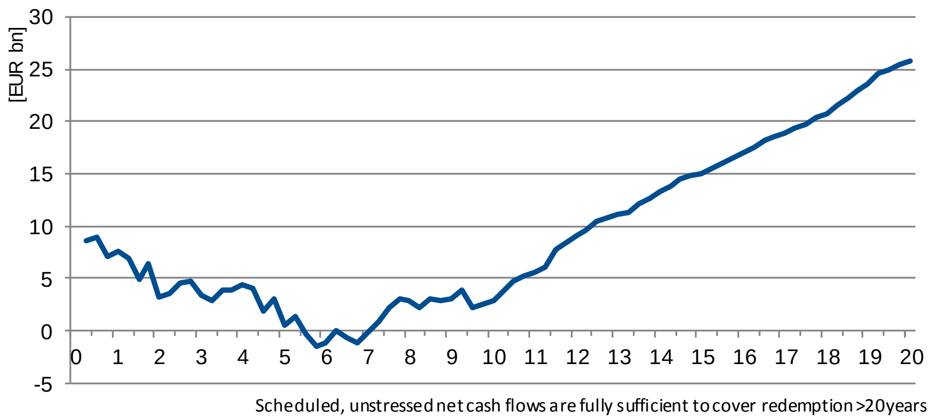


Figure 17. Cumulative net cash flow in euros

Low to moderate asset-liability mismatch but low absolute shortfalls

WAM assets: about 9.8 years
WAM liabilities: about 8.0 years



Conservative and actively managed liquidity only results in shortfalls in the medium term, likely helping to avoid fire sales

CoFF's scheduled cash flows (Figure 17) only become insufficient to meet upcoming redemptions in the medium term. This reflects the issuer's commitment to extend the provision of highly liquid collateral registered in the cover pool in order to provide immediate liquidity for the first 180 days up to one year. A cover pool manager would have enough time to arrange for other liquidity-generating measures to avoid a fire sale. As a result, haircuts assumed in our analysis apply a significant stress to the structure.

We view positively that the 2016 amendments of the MTN programmes allow CoFF to also issue soft bullets as a way to mitigate liquidity shortfalls. To date, CoFF has not issued any soft-bullet covered bonds, however.

[4] See Appendix I for counterparties that have provided interest or foreign exchange derivatives to CoFF.
[5] Any previous quarter's balances are carried forward and added to the respective quarter's net position. This profile does not consider any rating relevant-stresses we apply to the cash flows to reflect credit, market and refinancing risks. It neither reflects the impact of prepayments nor asset sales.

Overcollateralisation (OC)

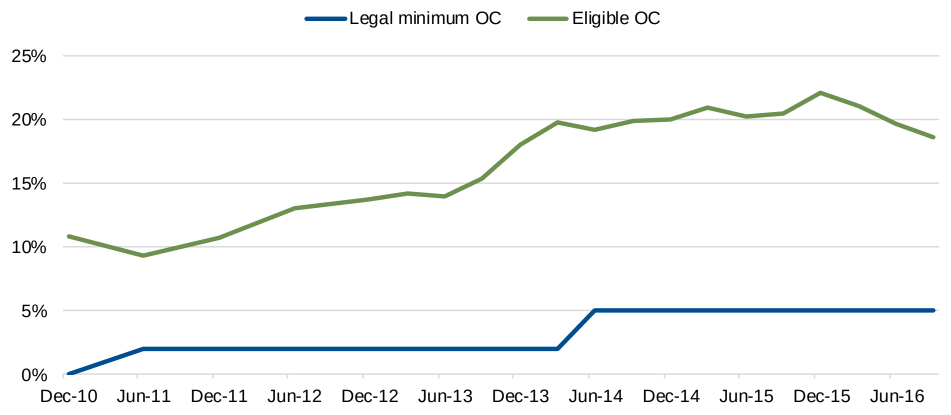
Currently the covered bond is not rated above the level suggested by our legal-framework and resolution-regime analysis, and the issuer's ability and willingness to provide overcollateralisation above the legal minimum is not decisive for the rating. The following, shows the credit enhancement that the cover pool provides irrespective of the covered bond framework in place.

As of 30 June 2016, CoFF's covered bonds had recourse to overcollateralisation of 21.5%. To support the same uplift as provided by the fundamental support, we have calculated an overcollateralisation of about 4%.

Provided overcollateralisation remained well above regulatory minimum requierements

If the issuer's credit quality deteriorated by one notch, and assuming the covered bond programme's cash flow profile remained unchanged, overcollateralisation would have to increase to about 10% to support the same rating uplift as provided by the fundamental support.

Figure 18. Development of supporting overcollateralisation



Current credit quality of CoFF allows the provision of benefit to available overcollateralisation

We are not aware of plans that would significantly change the risk profile nor reduce available overcollateralisation to levels that would no longer support the current rating uplift.

CoFF typically provides much higher levels of overcollateralisation than the minimum stipulated by the legal framework (currently 5%[6]), demonstrating the issuer's willingness and ability to support the covered bond programme's strong credit quality. The low observed in 2006 was about 8%, but has since increased. We also view positively the internal overcollateralisation guidance, as it is not static, but rather a function of the portfolio composition and risk profile. The respective levels are published in the annual report. These differentiate between stock and newly originated assets, as well as different property types.

Our credit view of CoFF would allow us to fully consider available overcollateralisation if this is needed. In the case CoFF is rated below BBB, we would identify whether the issuer's capital market communication on its intended overcollateralisation is robust. In the absence of this, we would establish a sustainable overcollateralisation level, against which we would compare the rating-supporting overcollateralisation to determine whether we can maintain the rating levels.

Counterparty risk

Derivative contracts benefit from collateralisation upon a credit quality deterioration and replacement frameworks

CoFF actively uses derivatives to limit or eliminate market risk[7]. To avoid swapping counterparty risks for market risk, we have analysed the available risk-mitigating mechanisms for the derivative counterparties. We take comfort that the derivative counterparties are generally of high credit quality, benefit from the BRRD, and are resolvable. Further, most derivatives entered into by CoFF benefit from additional mechanisms to mitigate counterparty risk, i.e. collateralisation upon the counterparty's negative credit migration, including its replacement with counterparties of stronger credit

[6] For the regulatory OC calculation cover assets are generally taken into account between 0% and 100% according to their type and quality (Banking and Financial Regulatory Committee -CBRF regulation N 99-10).
[7] See Appendix I for counterparties that provided interest or foreign exchange derivatives to CoFF.

quality. Most of the derivatives are market-standard micro and macro hedges, and the diversity of counterparties (23 agreements) should also facilitate their replacement.

High share of intra-group derivatives not impacting the ratings

When CoFF acquires assets from its parent, interest rate risk is typically hedged with macro swaps, and corresponding derivatives are entered into with the parent. CoFF also regularly enters into derivative contracts with other BPCE group companies. All of these contracts benefit from collateralisation and replacement mechanisms. About 60% of the CoFF's derivative notional is entered into with group companies.

We consider none of the largest individual derivative counterparty exposures to be 'excessive' as defined in our counterparty methodology. The portfolio is actively managed and based on a marked-to-market assessment, the netted intra-group exposures do not actually present a credit risk, but make the group a net creditor.

Counterparty risk is further mitigated for bank accounts (with BPCE) as they benefit from a replacement mechanism, and commingling risk for assets originated by its parent is addressed by a collection reserve that is funded upon a negative credit migration of CoFF.

In addition, we expect that any regulatory intervention in CoFF, Crédit Foncier or BPCE would use available resolution tools, with the aim of maintaining the group. Scope does not expect the active management and servicing of the SCF to be severely impacted, even though the company significantly relies on the parent for these functions.

FUNDAMENTAL CREDIT SUPPORT ANALYSIS

The French covered bond framework (in particular the framework applicable to OFs), combined with our credit-positive view on the resolution regime, allows us to assign a positive credit differentiation of up to six notches between CoFF's ICSR and the covered bond rating.

Taking into account our credit-positive view on the issuer, at AA-/Stable, only three of the six possible notches are currently needed to achieve the highest rating, which provides a buffer against downgrades of the issuer.

LEGAL FRAMEWORK ANALYSIS

Maximum two notch rating uplift reflecting the sound legal framework

The current French covered bond framework meets relevant provisions established in our rating methodology, allowing up to two notches of rating differentiation.

We have analysed the French covered bond framework, which builds on individual acts that provide a legal basis for the issuance of covered bonds and their insolvency remoteness[8]. We focus our analysis on aspects that are relevant for the ability of the covered bonds to meet contractual payments in time.

The French covered bond framework only allows covered bond issuance by specialist institutions[9] – typically, the subsidiaries of larger banks or banking groups. Covered bond investors have a priority claim on the cover pool and on the issuer's residual assets. However, they do not have recourse to the parent that has originated the cover pool assets.

Segregation of the cover pool upon insolvency

We have concluded that the OFs and other preferred liabilities have a priority claim on the eligible assets (including overcollateralisation) of the covered bond issuer (SCF). The SCF is a specialist financial institution supervised by the French regulator (Autorité de Contrôle Prudentiel et de Résolution – ACPR).

Due to limitations on the issuer's business activities and the special legal setup of the issuer, the SCF is almost insolvency-remote. The privileged claims of covered bond investors and derivative counterparties rank senior to any other claims. Upon the

[8] Main legal provisions are provided by the French Monetary and Financial Code, significantly amended in decree n°2014-526 dated 23 May 2014 as well as supplementary regulations as in the CRBF regulation n°99-10, last amended 26 May 2014.

[9] For OF the issuer needs to be incorporated as a société de crédit foncier or SCF; for OH the issuer is a sociétés de financement de l'habitat – or SFH.

insolvency of the SCF other creditors will only receive payments if covered bonds are paid in full. Even in the remote case of issuer default, covered bonds will not accelerate.

The eligible assets are generally originated and sold to the SCF via a true sale. In addition, an 8 November 2016 amendment (Sapin II) also introduces the use of collateralised loans (prêts sécurisés) that align the eligibility criteria of OFs with those of Obligations à l'Habitat (OH). It facilitates the collateral management (i.e. replacing non-performing loans) without compromising the validity of the legal transfer and introduces a more visible recourse to the sponsoring bank (generally the parent). Reflecting the almost SPV-like structure of the SCF, the assets typically remain serviced by the parent. The insolvency of the parent does not impact the validity of the asset's legal transfer to the SCF.

Ability to continue payments after issuer insolvency

Liqudity protection further enhanced by the ability to also use soft-bullet structures

The respective laws do not foresee the issuer's insolvency impacting its ability to make timely payments on covered bonds. The acts stipulate a maximum mismatch between cover assets and covered bonds[10]. Further liquidity provisions are available, such as the mandatory liquidity buffer that covers shortfalls within the next 180 days. Additional liquidity-mitigating mechanisms can be contractually agreed on as well. We understand that CoFF has introduced the ability to issue covered bonds with a soft-bullet structure, but it has not made use of this yet. SCFs can also enter into repo financings with the central bank to cover temporary liquidity shortfalls. The framework clearly establishes that the covered bonds do not accelerate upon issuer's insolvency.

Programme enhancements remain available

OF issuers have to actively manage market risk given their status as regulated entities. As a specialist bank, the restrictions implicitly benefit the covered bonds. Further, and in contrast to other European covered bond markets, market risks for French covered bond issuers are significantly reduced by derivatives. Derivative counterparties rank pari passu with covered bonds and will not accelerate upon the issuer's insolvency.

The trustees are obliged to monitor the ongoing adequacy of risk management measures.

Available overcollateralisation on the balance sheet remains fully available for covered bond holders upon the issuer's insolvency, as all other creditors of the SCF rank junior to the covered bonds. Overcollateralisation must be at least 5% above the level of outstanding covered bonds.

Covered bond supervision

Along with the general supervision by the French banking regulator, there are several other external monitoring requirements. An independent 'Contrôleur Spécifique' supervises statutory or contractual-maintenance requirements. Failure to comply must be reported to the regulator. Specific controllers are liable for any misconduct and are independent of both the issuer and sponsor bank.

Other legal framework considerations

Generally, all French covered bonds comply with UCITS and the Capital Requirements Regulation (CRR).

Based on our analysis, we provide OFs with the full credit differentiation of two notches.

Definition of eligible assets

Cover pool-eligibility criteria

OFs allow the establishment of collateral pools comprising both mortgage and public-sector assets. These bonds do not have to focus on one selected asset type, and CoFF makes active use of this. OFs can comprise:

- First-ranking residential or commercial mortgage loans as well as state-guaranteed real estate loans;
- Third-party guaranteed real estate loans (limited depending on the strength of the guarantee provider[11]);

[10] Remaining weighted average life (WAL) of the cover assets shall not exceed the WAL of the covered bonds by more than 18 months.
[11] Even SGFGAS-guaranteed mortgage loans can be included with a 100% LTV.

- Generally all mortgage loans within the European Economic Area (EEA) are eligible. Except for small shares, CoFF's cover pool only comprises domestic loans. The regulation introduces a maximum LTV of 80% for residential mortgage assets and commercial mortgage loans are only eligible up to 60% of their LTV. Regulation 99-10 stipulates that the collateral has to be revalued annually. CoFF generally applies annual statistical revaluations and, depending on the size, performs full valuations every three years. We understand that loans that are 90 days overdue can remain in the cover pool. Investors have a preferential claim on cover assets and recovery proceeds if the mortgage loan exceeds the LTV threshold;
- Public-sector loans, bonds or debt covered by public guarantees from entities within and outside EEA, based on rating requirements;
- Maximum 15% substitution assets comprising cash, bank and public-sector exposures; and
- Derivatives.

RESOLUTION-REGIME ANALYSIS

Resolution-regime analysis supports maximum credit elevation

CoFF's covered bonds benefit from an extra credit differentiation of four notches, based on our positive assessment of the resolution regime protection for the product, our view of the resolvability of the issuer; and the high systemic importance of covered bonds in France. These factors would, in our view, mobilise stakeholders to actively deal with the negative credit implications of a covered bond when its issuer is in distress.

Preferential treatment of covered bonds upon regulatory intervention

BRRD translation affirms covered bonds would be unaffected in a bail-in scenario

France has translated the BRRD into national legislation via the French ordonnance No. 2015-1024 of 20 August 2015, amending the Code Monétaire et Financier. As a result, the Single Resolution Board (SRB), in cooperation with the national resolution authorities, has the power to remove the management; appoint an interim administrator; sell the business of the institution under resolution; set up a bridge institution or an asset management vehicle; and apply the bail-in tool to capital instruments and eligible liabilities.

Senior secured covered bond debt is excluded from the bail-in. We generally expect covered bonds to remain with the going-concern to ensure continuance of critical functions and to avoid significant adverse effects on financial stability.

Resolvability of the issuer

Equally important to the product's preferential treatment is whether the covered bond is more likely to remain with a going-concern institution or whether covered bond investors would, in the event of a regulatory intervention, be faced with a (systematic) wind-down of the programme and its issuer. The latter case could, in our view, have negative repercussions on the current quality of the cover pool to be sustained. The need to replenish the cover pool for regular asset redemptions would be severely impacted in the event the issuer is wound down or no new mortgage loans could be underwritten.

We believe the BPCE group is resolvable and will comply with all the regulatory requirements that will also benefit CoFF. Given the special status of an SCF, the issuer is 'only a quasi bank' and is not subject to all regulatory requirements. As such, the balance sheet will not have sufficient bail-in-able debt to be 'resolvable' on its own. However, resolution is monitored at the group level and CoFF is included in the BPCE support system via Crédit Foncier[12].

Scope considers CoFF's business model to be sustainable within the context of the group, as it focuses on niches, and individual member banks cannot provide this. The focus on subsidised lending and low-income households is resource-intensive and requires economies of scale that smaller primary banks often cannot achieve. Also, the provision of public-sector financing is and, despite a likely moderating, will remain an important segment in the bank's business model.

As the largest covered bond issuer worldwide (measured by the notional of the cover pool and outstanding covered bonds), we also believe there is a strong systemic importance from both the lending perspective (high share of domestic public sector lending and

[12] See bank rating report available on www.scoperatings.com.

provision of subsidised lending) - as well as the high share of CoFF OFs in investor portfolios, i.e. there is a strong incentive to maintain the issuer as a going concern. As a result, we do not believe there are issuer-specific resolvability aspects that warrant an adjustment in our analysis.

Systemic importance of covered bonds

French covered bonds have a very high systemic importance

Covered bonds are actively used by the majority of French banks to fund mortgage lending. The share of outstanding French covered bonds, as well as annual new issuance, typically ranks among the top five worldwide (EUR 323bn outstanding vs annual issuance of EUR 44bn in 2015). French covered bonds are used by all major banking groups and the share of covered bonds compared to the GDP stood at 15% at the end of 2015.

French covered bond issuances are far larger in volume than corresponding ABS issuances for the respective asset types, reflecting the importance of covered bonds for refinancing mortgage or public-sector lending in France. The market has a strong footprint with both international and domestic investors.

Domestic stakeholder support

Active stakeholders prompted regular amendments to the legal framework

We believe French stakeholders are highly incentivised to maintain covered bond funding as a refinancing option and France has not seen any covered bond defaults to date. Support for distressed covered bond issuers was evidenced when one of the largest providers for domestic public-sector lending, as well as one of the largest covered bond issuers worldwide (Dexia Group), was bailed out. We believe interests are aligned strongly to maintain the covered bonds in a going concern company – even when the issuer is subject to regulatory intervention. The systemic importance of covered bond funding in France is expected to remain high. In our view, stakeholders are highly incentivised to support the product; we do not expect the use of resolution tools to negatively impact covered bonds.

RATING STABILITY

Changes to the issuer assessment

Maximum credit differentiation of nine notches possible

Based on our fundamental assessment of the French covered bond framework, CoFF's cover pool can support a credit differentiation for the covered bonds of up to nine notches above the issuer rating (see Overcollateralisation (OC)).

ICSR change of up to three notches allow ratings to be maintained as 'fundamental-support-based'

The issuer's sound credit quality, in combination with fundamental support, allows current ratings to be maintained without additional credit support from the cover pool. Current ratings will only become sensitive to changes in the cover pool's credit strength if we downgrade the issuer by more than three notches.

In the absence of significant changes to the currently low risk profile of the covered bond programme, current ratings could even remain supported by a negative credit deterioration of the issuer by almost six notches. However, such significant changes of the issuer's ICSR would have to be triggered by significant adverse shocks to the French economic and banking environment or significant, idiosyncratic credit-negative developments of either the issuer or BPCE group. Such events are also likely to result in corresponding changes to the cover pool's asset quality and risk structure, and thus require a constant monitoring of the programme's credit quality.

Changes to overcollateralisation

Cover pool can support the same level of uplift – but is not needed

As the current covered bond rating is driven by fundamental support, it is insensitive to changes in overcollateralisation. Even if overcollateralisation is reduced to the legal minimum, the current rating would be unaffected.

ICSR downgrade to increase the rating distance and OC requirement

Based on the current risk profile available overcollateralisation comfortably covers identified risk. Overcollateralisation of about 4.0% is sufficient to support the same three-notch difference between the issuer and the covered bond rating that is provided by fundamental support factors. An up to three-notch downgrade will leave the covered bond ratings 'fundamental-support-based' and thus not dependent on a sufficient provision of supporting overcollateralisation. Ignoring the fundamental uplift support and assuming a one-notch downgrade of the issuer, the supporting overcollateralisation would need to increase to about 10% to support the higher elevation and available overcollateralisation is sufficient for at least a six-notch rating difference.

We do not expect the gradual shift of the cover pool towards mortgage loans to impact the currently assigned ratings. We also do not expect credit-negative changes to the French legal or resolution framework that could potentially make us reassess our current fundamental-support-based uplift for the OFs.

SOVEREIGN RISK

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

Sovereign risk does not limit the ratings of the OFs. The risks of an institutional framework meltdown, legal insecurity or currency-convertibility problems, are currently immaterial.

We do not expect the 2017 election in France to directly translate into disruptive changes that would materially impact the credit risk of public-sector or mortgage borrowers.

DATA ADEQUACY

Detailed cover pool and performance data provided by CoFF

We consider the data quality as adequate in light of the cover pool's high granularity.

CoFF has provided Scope with public and confidential information on the cover pool composition, including asset performance and relevant cash flow details. We have received detailed loan-level data for the public-sector part of the cover pool and detailed stratification tables with the relevant credit characteristics of the mortgage segment (including delinquencies). Data for the mortgage portfolio was split into the relevant segments.

If detailed information on some credit aspects was unavailable, we benchmarked the bank's information with market data 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.

For the cash flow analysis we used scheduled, post-hedge cash flows provided by the issuer and we ensured consistency by reconciling this data with available information.

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

MONITORING

Ratings are regularly monitored

Scope will monitor this transaction using information regularly provided by the issuer. The ratings will be monitored and reviewed at least once a year, or earlier if warranted by events.

APPLIED METHODOLOGY

To analyse the OFs, Scope applied the 'Covered Bond Rating Methodology' published 22 July 2016 and the 'Methodology for Counterparty Risk in Structured Finance', dated 12 August 2016. We also applied the principles as per our 'General Structured Finance Rating Methodology', dated 31 August 2016 for the asset and cash flow analysis. Our rating methodologies are available on our website www.scoperatings.com

APPENDIX I. COUNTERPARTY EXPOSURES

Derivative counterparty exposures

On top of the regulatory requirements applicable to SCFs, CoFF applies a stringent hedging policy aimed at containing interest and foreign exchange risk. As a result CoFF engages with a significant number of derivative counterparties and the majority of contracts are based on standard ISDA master agreements or in some cases the French banking association's equivalent (FBF).

We have analysed the cash flows on a post-swap basis. This follows our analysis of the individual derivative contracts to determine the level of benefit we can provide to the OFs. Derivative counterparties generally have strong credit quality. We believe that derivative counterparties operating under a resolution framework similar to the BRRD are generally resolvable and, due to their collateralisation, derivatives are generally not impacted upon a regulatory intervention in the issuer. Further, collateralisation and replacement mechanisms that are activated upon a counterparty's breach of rating triggers shield the covered bonds from the credit-negative impacts driven by a deterioration of the counterparty.

Figure 19. Derivative counterparties in % of CoFF total swap notional as of 30 June 2016

Derivative Counterparty	Country	% of notional
Credit Foncier	France	40.8%
Natixis CIB	France	22.2%
JP Morgan	USA	7.3%
Credit Agricole CIB	France	6.8%
Barclays Bank plc	UK	3.9%
Royal Bank of Scotland	UK	3.5%
HSBC France	France	3.5%
Deutsche Bank AG	Germany	2.0%
Royal Bank of Canada	UK	1.4%
BNP Paribas	France	1.3%
Merill Lynch International Bank Ltd.	UK	1.2%
Morgan Stanley Bank International Ltd.	UK	1.1%
Societe Generale	France	1.0%
Citibank Ltd., London	UK	0.8%
Credit Suisse International	UK	0.8%
Unicredit Bank AG	Germany	0.8%
Commerzbank AG	Germany	0.5%
UBS Ltd.	UK	0.4%
ANZ Banking Group Ltd.	Australia	0.2%
DZ Bank AG	Germany	0.2%
Zurcher Kantonalbank	Switzerland	0.1%
Goldman Sachs International	UK	0.1%
Nomura Derivative Products Inc.	USA	0.0%

Other counterparty exposures

Bank account provider: BPCE

APPENDIX II. COVERED BOND MODELLING

Credit risk modelling – mortgage assets

CoFF's mortgage pool is highly granular, and we analysed it using a standard default-probability distribution law (Inverse Gaussian). This approach relies on i) a measure of mean default probability, and ii) a variance or correlation parameter. In the cash flow analysis, we also add recovery rate assumptions for the pool.

We have used issuer-specific performance information of the relevant sub-portfolios to establish lifetime default rate assumptions and a default rate coefficient of variation[13] for the respective asset types. We used the performance data grouped by vintages during 2000-2015 for residential (with and without additional guarantees) as well as buy-to-let mortgages grouped by the year of the asset's origination.

Credit risk modelling – public-sector assets

Public-sector cover pools are often concentrated and do not have a very high diversification, resulting in heterogeneous distribution of default probabilities. We have modelled the default distribution for this portfolio, based on the amortisation profile of the individual loans, their default rates through time, and assumptions of correlations between the assets.

We have analysed the exposures in the cover pool and formed credit assessment on each asset. We have also established a correlation framework for the cover pool assets. Our asset correlations take into account a global correlation assumption, to which we add country- or industry-specific factors, reflecting the differing transfer mechanisms, supervision and guarantee structures observed between eligible exposures. Correlation assumptions factors applied for CoFF's cover pool range from 15% to 25%.

To account for concentration risk, we have introduced additional correlation stresses of 20% for exposures larger than 0.5% of the sub-portfolio and added the same correlation stress for the exposures that contribute more than 1.0% to the portfolio's expected loss.

Scope derived the default distribution from a single-step Monte Carlo simulation of portfolio defaults. Assets defaults are driven by a set of common stochastic factors and an idiosyncratic component. The model calculates the estimated cumulative density function of default rates and default frequencies, and also provides estimates for the default timings.

Recovery rates applied for public-sector assets depend on the rating distance between the ICSR and the covered bond rating. In our base case, we typically assume no losses for public-sector assets. Rating conditional asset- and country-specific public-sector recoveries reflect the individual asset's guarantee structures, country-specific transfer and equalisation systems, as well as the tiering of public-sector exposures. We generally assume the lowest recovery rates for sovereign exposures by applying 40%; for sub-sovereigns or municipalities, the recovery rates can be as high as 75%. We generally use a 50% assumption for public-sector companies or other eligible guaranteed exposures.

Cash flow modelling

The main inputs for the cash flow simulation are the credit-related parameters of the pool (e.g. amortisation profile, default distributions, default timings, recoveries) and market-scenario parameters (e.g. stressed interest rate and foreign exchange term structures, stressed refinancing assumptions).

Scope has applied the default distribution of the mortgage and the public-sector portfolio (for mortgages, an inverse Gaussian probability distribution and a non-parametric default distribution from the portfolio modelling) to our cash flow modelling of the covered bond programme to calculate the probability-weighted (i.e. expected) loss of each of the segments. In the analysis we also apply rating-conditional recovery-rate stresses as a function of the rating distance (D0 to D9) between the covered bonds and the issuer.

The modelling of the covered bonds' cash flow waterfall assumes that asset sales can cover liquidity shortfalls. Proceeds from asset sales are determined by calculating the present value, i.e. by discounting all future expected cash flows and adding a liquidity premium for the cover pool.

We discount future cash flows of the performing assets by applying the discount curve constructed from an expected forward curve through simple compounding. The net present value at period k with compounding interval $\Delta(t_j)$ is calculated as:

Figure 20. Net present value of the cover pool

$$\sum_{i>k}\prod_{j=k}^{i-1}\frac{1}{1+r_{forward}(t_j)\Delta(t_j)}CF(t_i)$$

13 The coefficient of variation is defined as the standard deviation divided by the mean.

Interest rate stresses are applied consistently by shifting the discount curve parallel so that the day-zero forward of the discount curve matches the corresponding forward rate $r_{forward}(t_k)$.

Scope applies a set of increasing stress scenarios specific to the covered bond programme to the input parameters and tests the cover pool's ability to service the covered bonds. The stress scenarios are rating-dependent changes in recovery rates, market parameters and liquidity premiums. We also tested the cover pool against different assumptions for constant prepayment rates (CPR). The structure has 'passed' a certain rating level when the model result is at least commensurate with the target rating of a certain rating scenario.

The covered bond rating is anchored at Scope's view of the credit quality of the issuer, the ICSR. Scope's methodology reflects this by considering stress scenarios which depend on the rating distance. The base case scenario is anchored at the ICSR, i.e. we allow the issuer to cover for rating scenarios up to its rating. The cover pool therefore only needs to support scenarios above this threshold. We translate the stresses commensurate with the potential uplift into a quantitative covered bond rating (e.g. issuer rating: AA-; cover pool uplift test + 3 notches; cover pool rating benchmark: AAA).

Key modelling parameters

Based on the composition of the cover pool, we apply segment-specific recovery rates. We also base the relevant average liquidity premium on the cover pool's composition. The highest stress assumptions only apply in the scenario which, if passed, allows us to assign the maximum credit differentiation between the issuer and its covered bonds.[14]

Liquidity premium: We have applied on average 300bps as additional liquidity premium for the discounting of mortgage assets. For public-sector assets we have used country- and segment-specific spread assumptions that reflect stressed spreads for the respective segment as seen during the crisis. Based on the current composition of the public-sector segment, the weighted average liquidity-premium spread amounts to 290bps. We determine the blended liquidity premiums specific to the cover pool by applying stressed country-specific spreads. For the mortgage segment of the cover pool, we have analysed the development of comparable assets. As most of CoFF's mortgage cover assets are geared towards guaranteed but low-income mortgages with rather high LTVs, we have not applied trading spreads of other French covered bonds, but have applied a spread based on RMBS transactions with similar asset types.

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

Interest rate modelling: We have tested CoFF's covered bonds against several scenarios of rising and falling interest rates. The rising interest rate scenarios increase from the current rate environment to a stressed interest rate of 10%. After two years they start to revert back to a long term mean. The corresponding falling interest rate stresses drop after the first two years to a low of minus 1%. In contrast to the rising interest rate scenarios, we not only model interest rate developments that revert back to the mean after two years but also scenarios in which the interest rates remain at those negative rates. For both rising and falling interest rate scenarios we simulate interest rate patterns when rates start to deviate from current expectations at different starting points. The tested interest rate scenarios start to deviate between year 2 and year 10. Further, the tested patterns also include a scenario that reflects current interest rate expectations.

Foreign-exchange risk modelling: Not relevant for CoFF's cover pool, as all assets and liabilities are hedged in euros.

Prepayment rate assumption: For the rating determination, we tested both a very conservative 0% CPR assumption for all cover assets. Scenarios tested also include high prepayment assumptions for mortgage assets. Generally, higher CPRs benefit the cover pool analysis as it increases cash accumulation inter alia, reducing the need to monetise parts of the cover pool.

Servicing fee: We apply country- and asset-type-specific servicing fees the cover pool has to pay on an annual basis. We applied a 0.25% to the mortgage segment and 0.10% for the servicing of the public-sector sub-pool.

[14] 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 sets out that the maximum credit differentiation can only be three notches higher than this fundamental uplift. For CoFF, we have determined a fundamental support of six notches. According to our methodology, the maximum achievable uplift is nine notches (6+3).

APPENDIX III. SUMMARY OF COVERED BOND CHARACTERISTICS

Reporting date	30 June 2016
Issuer name	CoFF
Country	France
Covered bond name	Obligations Foncières (legal-framework-based)
Cover pool type	Mixed
ICSR	AA-/Stable
Current covered bond rating:	AAA/Stable
Fundamental cover pool support (notches)	6
Max. achievable covered bond uplift (notches)	9
Potential covered bond rating buffer	6
Cover pool [EUR bn]	79.2
Covered bonds [EUR bn]	66.3
Current overcollateralisation/ Legal minimum OC	21.5% / 5.0%
OC to support current uplift	4.0%
OC to support current rating upon a one notch downgrade	10.0%
Duration/ WAM assets	9.2 years / 9.8 years
Duration/ WAM liabilities	7.4 years / 8.0 years
Duration/ WAM GAP	1.8 years / 1.8 years
Number of loan exposures (pub. sector/ mortgage pool)	11,50 6/ 612,781
Average loan size (pub. sector/ mortgage pool – in EUR '000s)	2,957 / 62.95
Top-10 exposures (pub. sector) Top-20 exposures (pub. sector)	26.3% 33.9%
Default measure (public-sector sub-pool)	Non-parametric
WA recovery assumption (public sector D0/ D3/D9)[1]	100.0% / 86.7% / 62.9%
Default measure (mortgage sub-pool)	Inverse Gaussian
WA DR (mortgage)	9.3%
WA CoV (mortgage)	24.7%
WA recovery assumption (D0/ D3/ D9) [1]	92.8% / 79.5% / 55.7%
Current share of loans > 6 month in arrears[2]	2.8%
IR stresses (max./min.; CCY dependent)	-1% to 10%
FX stresses (max./min.; CCY dependent)	N/ A
D9[1] Liquidity premium (mortgage/pub. sector)	300bps / 290bps
Servicing fee (mortgage/pub. sector)	0.25% / 0.10%

[1]D0, D3 or D9 denote the stresses commensurate with the rating distanced between the ICSR and the covered bond ratings
[2] For the rating analysis and the calculation of the supporting OC we only have taken into account the "performing balance"

APPENDIX IV. REGULATORY AND LEGAL DISCLOSURES

Important information

Information pursuant to Regulation (EC) No 1060/2009 on credit rating agencies, as amended by Regulations (EU) No. 513/2011 and (EU) No. 462/2013

Responsibility

The party responsible for the dissemination of the financial analysis is Scope Ratings AG, Berlin, District Court for Berlin (Charlottenburg) HRB 161306 B, Executive Board: Torsten Hinrichs (CEO), Dr. Stefan Bund and Dr. Sven Janssen.

The covered bond rating analysis has been prepared by Karlo Fuchs, Executive Director

Responsible for approving the covered bond rating: Guillaume Jolivet, Managing Director

Rating history of French covered bonds (OF) issued by CoFF

Date	Rating action	Seniority	Rating/ Outlook
6.2.2017	First assignment	senior secured covered bonds	AAA/ Stable

The rating concerns a debt type of issuer which was evaluated for the first time by Scope Ratings AG. Scope had already assigned private ratings for the rated instruments in accordance with Regulation (EC) No 1060/2009 on rating agencies, as amended by Regulations (EU) No 513/2011 and (EU) No 462/2013.

Information on interests and conflicts of interest

The rating was prepared independently by Scope Ratings but with a mandate by Compagnie de Financement Foncier (solicited).

As at the time of the analysis, neither Scope Ratings AG nor companies affiliated with it hold any interests in the rated entity or in companies directly or indirectly affiliated to it. Likewise, neither the rated entity nor companies directly or indirectly affiliated with it hold any interests in Scope Ratings AG or any companies affiliated to it. Neither the rating agency, the rating analysts who participated in this rating, nor any other persons who participated in the provision of the rating and/or its approval hold, either directly or indirectly, any shares in the rated entity or in third parties affiliated to it. Notwithstanding this, it is permitted for the above-mentioned persons to hold interests through shares in diversified undertakings for collective investment, including managed funds such as pension funds or life insurance companies, pursuant to EU Rating Regulation (EC) No 1060/2009. Neither Scope Ratings nor companies affiliated with it are involved in the brokering or distribution of capital investment products. In principle, there is a possibility that family relationships may exist between the personnel of Scope Ratings and that of the rated entity. However, no persons for whom a conflict of interests could exist due to family relationships or other close relationships will participate in the preparation or approval of a rating.

Key sources of Information for the rating

Website of the rated entity/issuer, Annual reports/quarterly reports of the rated entity/issuer as well as other public covered bond specific reports, Programme documentation and terms and conditions of the covered bonds issued, Current performance information as well as confidential information on the composition of the cover pool composition and related cash flow structures, Data provided by external data providers, Interview with the rated entity, Press reports, official publications and data series by the central bank and research from reputable market participants.

Scope Ratings considers the quality of the available information on the evaluated entity to be satisfactory. Scope ensured as far as possible that the sources are reliable before drawing upon them, but did not verify each item of information specified in the sources independently.

Examination of the rating by the rated entity prior to publication

Prior to publication, the rated entity was given the opportunity to examine the rating and the rating drivers, including the principal grounds on which the credit rating or rating outlook is based. The rated entity was subsequently provided with at least one full working day, to point out any factual errors, or to appeal the rating decision and deliver additional material information. Following that examination, the rating was not modified.

Methodology

The main methodology applicable for the covered bond rating is: “Covered Bond Rating Methodology”, published 22. July 2016.

The historical default rates of Scope Ratings can be viewed on the central platform (CEREP) of the European Securities and Markets Authority (ESMA): http://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml. A comprehensive clarification of Scope’s default rating, definitions of rating notations and further information on the analysis components of a rating can be found in the documents on methodologies on the rating agency’s website.

Conditions of use / exclusion of liability

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