

# 4Mori Sardegna S.r.l.

## Non-Performing Loans (NPL)



### Ratings

Tranche	Rating	Size (EUR m)	Thickness (%)	CE as % of GBV <sup>1</sup>	Coupon	Final maturity
Class A	A-SF	232.0	91.7	77.8	6m-Euribor <sup>2</sup> + 0.9%	Jan 2037
Class B	BB-SF	13.0	5.1	76.6	6m-Euribor + 8.0%	Jan 2037
Class J	NR	8.0	3.2	75.8	variable return	Jan 2037

Scope's Structured Finance 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 the [SF Rating Definitions](#).

<sup>1</sup> Gross book value (GBV) of the securitised portfolio at closing (EUR 1,045m)

<sup>2</sup> 6m-Euribor is capped at i) 0.3% until the end of July 2021; ii) 0.5% until the end of January 2024; iii) 0.7% until the end of January 2025; iv) 1.25% from February 2025.

### Transaction details

Purpose	Risk transfer
Issuer	4Mori Sardegna S.r.l.
Originator	Banco di Sardegna S.p.A. (51% owned by BPER banking group)
Servicer	Prelios Credit Servicing S.p.A.
Portfolio cut-off date	31 December 2017
Closing date	21 June 2018
Payment frequency	Semi-annual (January and July)

The transaction is a static cash securitisation of an Italian NPL portfolio worth EUR 1,045m by gross book value, comprising both secured (56.1%) and unsecured (43.9%) loans. The loans were extended to companies (75.6%) and individuals (24.4%) and were originated by Banco di Sardegna S.p.A. Secured loans are backed by residential (51.3% of indexed property valuations) and non-residential (48.7%) properties that are highly concentrated in the metropolitan cities of Sardinia (24.4%) and other Sardinian regions (62.9%). The issuer acquired the portfolio at the transfer date, 7 June 2018, but is entitled to all portfolio collections received after 31 December 2017 (portfolio cut-off date).

The structure comprises three classes of notes with fully sequential principal amortisation: senior class A, mezzanine class B, and junior class J. The class B interest ranks senior to class A principal at closing but will be subordinated if servicer performance triggers are breached.

### Rating rationale (summary)

The ratings are driven mainly by the notes' comparatively high credit enhancement levels and relatively high recovery amounts for secured loans due to below-average loan-to-value ratios and expected timing for cash flows in line with other NPL portfolios. Liquidity coverage for the class A notes is higher than in many other Italian NPL transactions, which also supports the ratings on the senior notes. The ratings also reflect substantial stresses applied to the assets in order to account for the concentrated exposure to Sardinia. The issuer acquired the portfolio at a 75.8% discount to the portfolio's gross book value. Recovery and timing assumptions applied in the analysis incorporate Scope's economic outlook for Italy and positive view of the special servicer's capabilities. The ratings are supported by the structural protection provided to the notes, the absence of equity leakage provisions, liquidity protection, and interest rate hedging agreements.

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### Related Research

General Structured Finance  
Rating Methodology,  
August 2017

Methodology for Counterparty  
Risk in Structured Finance,  
August 2017

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The ratings also address exposures to the key transaction counterparties: Prelios Credit Servicing S.p.A. (Prelios) as servicer; Securitisation Services S.p.A. as back-up master servicer, corporate services provider, representative of the noteholders, and calculation agent; Zenith Service S.p.A. as monitoring agent; BNP Paribas Securities Services, Milan Branch as account bank; Banca IMI S.p.A. as interest rate cap provider.

Scope applied a specific analysis to recoveries and has differentiated between secured and unsecured exposures. For secured exposures, collections were based mostly on the latest property appraisal values which were stressed to account for liquidity and market value risks; recovery timing assumptions were derived using line-by-line asset information detailing the type of legal proceeding, the court issuing the proceeding, and the stage of the proceeding at the cut-off date. For unsecured exposures, Scope used historical line-by-line market-wide recovery data on defaulted loans between 2000 and 2017 and calibrated recoveries, taking into account that unsecured borrowers were classified as defaulted for an average of 6.4 years as of closing.

## Rating drivers and mitigants

### Positive rating drivers

**Above-average collateralisation.** The class A and class B notes benefit from credit enhancement levels of 77.8% and 76.6% respectively (calculated as a percentage of gross book value) which are high compared to those in peer transactions rated by Scope. The loan-to-value of 56.3% is much lower than peer transactions (65-85%) and supports secured loans recovery rate levels.

**Liquidity protection.** A cash reserve represents 4.9% of the total outstanding balance of class A and class B notes. This is among the highest for Italian NPL transactions. It protects the liquidity of senior noteholders, covering senior expenses and interest on class A notes for about 3.5 payment dates as of closing.

**High share of foreclosures.** Around 67.9% of the portfolio's first-lien secured gross book value corresponds to borrowers under a foreclosure. Compared with bankruptcies, foreclosures typically result in higher recoveries and are more quickly resolved.

**Portfolio servicing.** The fee structure aligns the servicer's incentives with investors' interests. Prelios has a solid record of servicing NPL portfolios. The monitoring agent will assist the issuer in finding a suitable replacement in the event of a servicer disruption. The servicer has also provided a line-by-line business plan at closing, detailing the expected collections and legal expenses for each loan.

**Real estate recovery.** Scope expects a gradual recovery of Italian real estate prices, notwithstanding weak medium-term economic growth potential. The cyclical recovery from the current trough will be driven by moderate private-sector indebtedness and improving property affordability.

**Tight performance triggers.** The triggers protect senior noteholders. For as long as the special servicer does not meet at least 90% of the business plan's collection schedule, class B interest payments will become subordinated below class A principal.

### Negative rating drivers and mitigants

**Concentrated portfolio.** The 10 and 100 largest debtor exposures respectively account for 8.0% and 27.7% of the portfolio's gross book value.

**Location.** The portfolio is heavily concentrated in Sardinia's metropolitan and non-metropolitan areas, which are less economically dynamic, and have generally less efficient tribunals compared with other Italian regions.

**Seasoned unsecured portfolio.** The weighted average time since default is approximately 6.4 years for the unsecured portion. Most unsecured recoveries are realised in the first years after a default according to historical data.

**Collateral liquidity risk.** Scope's assumptions on fire sales, valuations and market-value declines constitute the primary source of portfolio performance stresses.

**Collateral appraisal values.** NPL collateral appraisals are more uncertain than standard appraisals because repossessed assets are more likely to deteriorate in value.



## 4Mori Sardegna S.r.l. Non-Performing Loans (NPL)

### Upside rating-change drivers

**Legal costs.** Scope has factored in the legal expenses for collections as detailed in the servicer's business plan, which average about 8% of gross collections and are higher than those in peer transactions. A decrease in legal expenses could positively affect the ratings.

**Servicer outperformance regarding recovery timing.** Consistent servicer outperformance in terms of recovery timing could positively impact the ratings. Portfolio collections will be completed over a weighted average period of 4.6 years, according to the servicer's business plan. This is about 50 months faster than the recovery timing vector (under A- stress) applied for the analysis (Scope expects recent legal reforms to have a positive impact on court performance and has applied a limited stress on recovery timing assumptions).

### Downside rating-change drivers

**Fragile economic growth.** The trajectory of Italy's public debt is of concern given its weak medium-term growth potential of 0.75% alongside the new government's plans to reverse reform, raise spending and cut taxes.

**Interest rate cap.** An interest rate cap, with an increasing strike schedule which ranges from 0.3% as of closing to 1.25% from February 2025, partly mitigates the risk of increased liabilities on the notes in the event of a rise in Euribor. Delayed recoveries beyond Scope's stressed recovery timing vector would increase the mismatch between the swap notional and the outstanding principal of the rated notes.

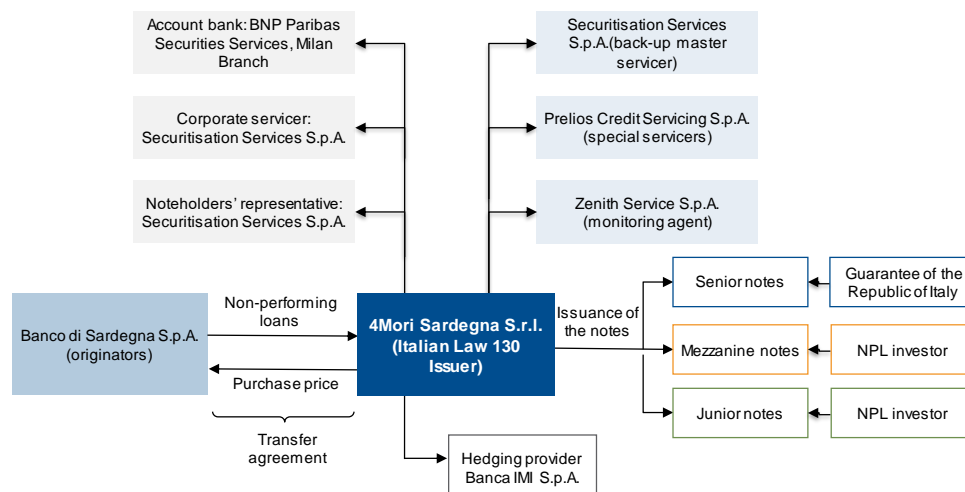
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## 1. Transaction summary

The transaction structure comprises three tranches of sequential principal-amortising notes, an amortising liquidity reserve equal to 4.9% of the outstanding class A and class B notes, and an interest rate cap agreement.

**Figure 1: Transaction diagram**



Source: Transaction documents and Scope.

Figure 2 shows the main characteristics of the preliminary portfolio analysed by Scope as of the 31 December 2017 cut-off date.

**Figure 2: Key portfolio stratifications**

Data summary as of pool cut-off date 31 December 2017

	adjusted pool	Scope-adjusted pool		
		All	Secured	Unsecured
Number of loans	25,080	20,098	11,275	8,823
Number of borrowers	11,068	11,412		
Gross book value (EUR)	1,044,643,622	900,420,696	510,126,397	390,294,299
% of gross book value	100%	100%	56.7%	43.3%
Weighted average seasoning		4.8	3.6	6.4
Sum of collateral appraisal values (EUR)	990,092,263		906,338,864	
Borrower type				
Corporate	76.0%	75.6%	84.8%	63.3%
Individual	24.0%	24.4%	15.2%	36.4%
Primary procedure*				
Bankrupt borrower		39.1%	26.4%	55.6%
Non-bankrupt borrower		60.9%	73.6%	44.4%
Not started or unknown		0.0%	0.0%	0.0%
Stage of procedure (secured loans)				
Initial	59.0%		58.2%	
Court-appointed valuation (CTU)	19.0%		15.6%	
Auction	20.0%		26.3%	
Distribution	2.0%		0.0%	
Geography (collateral value based on location)				
North	1.2%		1.3%	
Centre	11.5%		11.3%	
South and islands	87.3%		87.4%	
Borrower concentration				
Top 10		8.0%		
Top 100		27.7%		
Property type				
Residential	50.0%		51.3%	
Non-residential	50.0%		48.7%	

Source: Transaction data tape; calculations and/or assumptions by Scope Ratings

Scope has adjusted the pool's gross book value based on information regarding closed positions, collections, sold properties, as well as information from the servicer's business plan. Specifically, the analysis has excluded portfolio loans that the agency has assumed to be closed; based on collections already received, cash in court to be received, and loans assumed to have no recoveries according to the servicer's assumptions. Collateral connected with these positions has also been removed. Overall, Scope's adjustments have reduced the pool to EUR 900m, the cash balance to EUR 9.1m (collections from January to April 2018) and cash in court to EUR 11.2m (assumed to be received with a one-year delay). All charts and stratifications below include these adjustments.

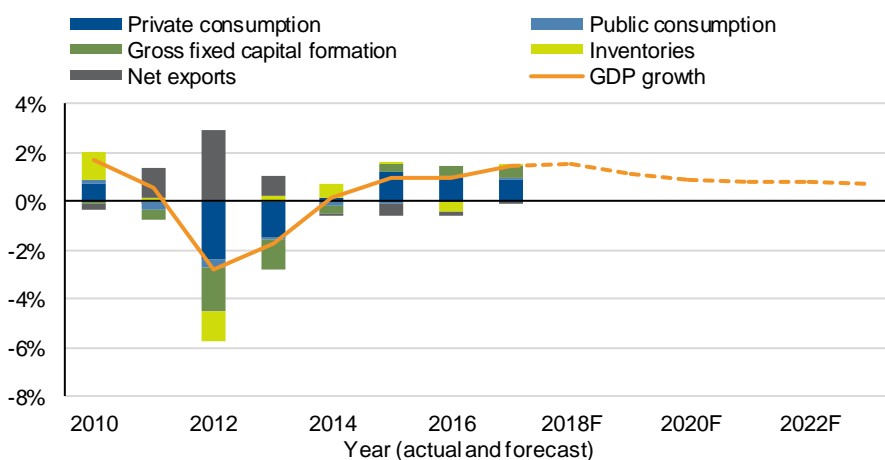
### Gradual property price recovery despite economic challenges

## 2. Macroeconomic environment

Scope's portfolio recovery and timing expectations reflect its expectation of Italy's gradually recovering real estate prices and progress in delivering structural reforms, notwithstanding its weak medium-term economic growth potential. The cyclical recovery from the current trough will be driven by moderate private-sector indebtedness and improving property affordability.

Scope's sovereign rating on Italy (A-/Negative) is underpinned by a large and diversified economy and a cyclical rebound against the backdrop of long-term economic challenges. The Negative Outlook reflects Scope's concerns over Italy's public-debt trajectory, given the weak medium-term growth potential of 0.75% alongside the new government's plans to reverse reforms, raise spending, and cut taxes.

**Figure 3: Percentage-point contribution to real GDP growth**



### Moderate private debt levels

The IMF, in its April 2018 World Economic Outlook (WEO), revised Italy's 2018 growth forecast to 1.5% from 1.1% and raised its 2019 expectations to 1.1% from 0.9%. Italy's manufacturing sector – the second largest in the euro area after Germany's – has helped to generate current-account surpluses since 2013 (2.8% of GDP in 2017). Unlike many advanced economies, Italy did not experience a credit-driven boom-bust cycle before the 2008 crisis. Domestic non-financial private debt stands at a comparatively moderate 156% of GDP as of Q3 2017, comparing favourably against euro area peers.

### Weak long-term growth prospects

While the cyclical rebound exceeded expectations, long-term growth prospects remain weak. The IMF's medium-term forecast<sup>1</sup> remained at 0.8% in the April 2018 WEO. Italy's production capacity fell in the aftermath of the global financial crisis. As of February 2018, industrial production volumes stood at 81% of early 2008 levels. This comes in contrast to the full recovery in Germany's industrial production post-crisis.

<sup>1</sup> Referring to the IMF's April 2018 WEO's forecast for 2023 growth.

The drop in industrial production capacity is a reflection of the vulnerabilities within Italy's production infrastructure. More than 90% of manufacturing output is generated by micro-firms concentrated in industrial districts. While these firms are competitive in their global niche markets (luxury clothing, household goods, food processing, mechanical products, and motor vehicles), they remain susceptible to market shocks. Their financing capacities are limited and were hit hard during the euro crisis.

Unemployment continues to gradually drift downward from its 2014 peak (13% in November) and was 10.9% as of February 2018. Wage growth has picked up 1.0% YoY as of March 2018. However, inflation remains tepid at only 0.5% YoY in April 2018.

**Political and banking system challenges**

At the same time, political uncertainties following the March 2018 general elections, as well as ongoing challenges in the banking sector, may weigh on the economic rebound. Italian banks' lending to residents rose 1.9% YoY in February 2018, a modest growth after the previous years of contraction.

**Scope's assumptions reflect significant recovery timing stresses**

**3. Portfolio analysis**

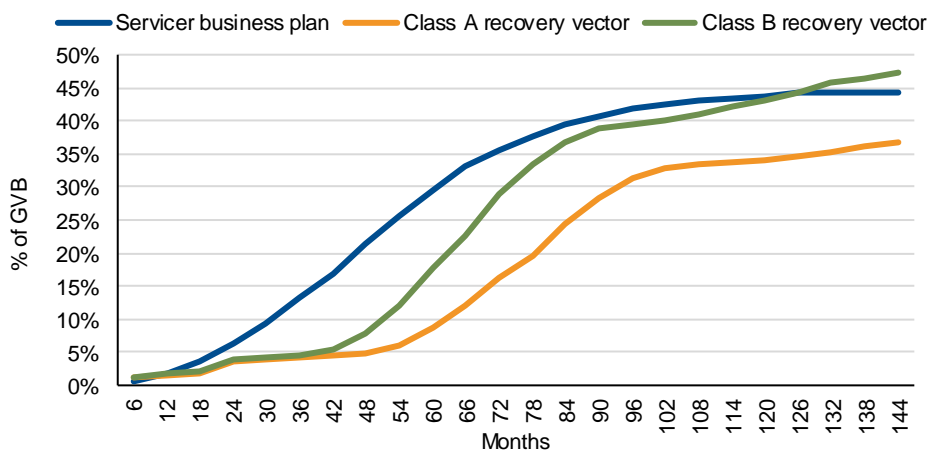
Figure 4 compares Scope's lifetime gross collections and recovery timing assumptions for the entire portfolio against those in the servicer's business plan. Scope has applied rating-conditional recovery rates (i.e. lower recoveries as the instrument's target rating increases). These assumptions result from the blending of secured and unsecured recovery expectations. Scope has applied different analytical frameworks to the secured and unsecured segments to derive recoveries.

**Rating-conditional recovery assumptions**

For the analysis of the class A notes, Scope has assumed a gross recovery rate of 38.8% over a weighted average life of 7.4 years. By portfolio segment, Scope has assumed gross recovery rates of 61.4% and 9.2% for the secured and unsecured segments, respectively.

For the analysis of the class B notes, Scope has assumed a gross recovery rate of 46.5% over a weighted average life of 6.4 years. By portfolio segment, Scope has assumed gross recovery rates of 73.7% and 11.0% for the secured and unsecured segments, respectively.

**Figure 4: Business plan expected recoveries vs Scope's rating-conditional vectors**



Source: Servicer's business plan and Scope Ratings

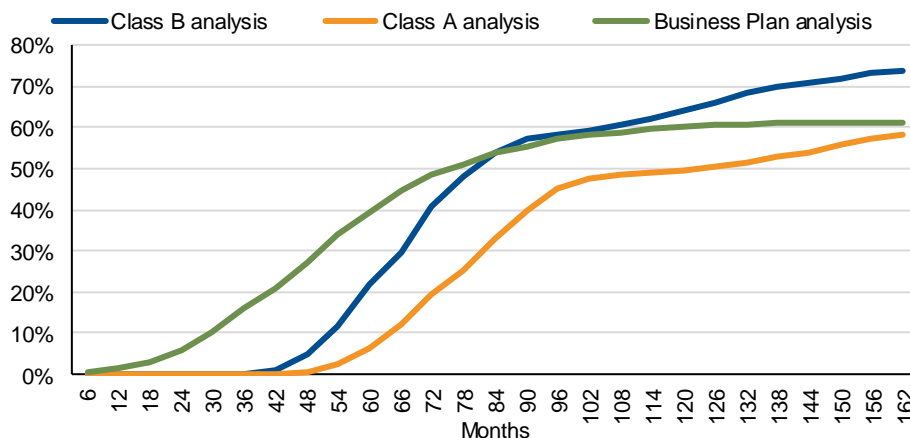
**3.1.**

Valuation haircuts mainly address forward-looking market value and liquidity risks

### 3.2. Analysis of secured portfolio segment

Figure 5 shows Scope's rating-conditional lifetime gross-collections vectors for the secured portfolio segment. Scope's analytical approach consists mainly of estimating the security's current value based on property appraisals and then applying security-value haircuts to capture forward-looking market value and liquidity risks. The analysis also captures concentration risk, the servicer's business plan, and available workout options.

**Figure 5: Scope's rating-conditional secured recovery rate vectors**



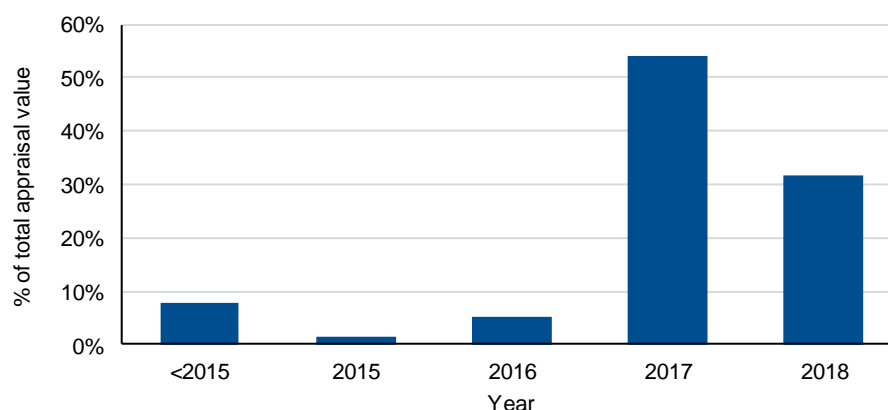
Source: Servicer's business plan and Scope Ratings

Mainly recent property valuations

#### 3.2.1. Appraisal analysis

Scope has relied on line-by-line property appraisals conducted by Prelios. Most of the valuations are relatively recent, i.e. conducted between 2017 and 2018. Scope has indexed seasoned valuations using a variety of price indices. Indexation has a marginal impact on this NPL portfolio because property prices have remained fairly flat since 2015.

**Figure 6: Property appraisal dates**



Source: Transaction data tape; calculations and/or assumptions by Scope Ratings

Most of the portfolio's collateral appraisals are either a drive-by (38.8%) or desktop valuation (40.0%), to which Scope has applied 0% and 5% haircuts respectively. A smaller portion is composed of CTU (20.5%) valuations, to which Scope applied a 10% haircut, reflecting its view of their lower levels of quality and accuracy due to the simplified procedures.

**Figure 7: Portfolio appraisal types and Scope assumptions**

Valuation type	% of collateral value	Class A haircut (A- stress)	Class B haircut (BB- stress)
Drive-by	38.8	0.0%	0.0%
Desktop	40.0	5.3%	4.3%
CTU	20.5	10.7%	8.7%
Other	0.7	10.7%	8.7%

### 3.2.2. Market-value-decline assumptions

Figure 8 details Scope's rating-conditional assumptions on property price changes over the transaction's lifetime. These assumptions are transaction- and region-specific and based on an analysis of historical property price volatility and on fundamental metrics relating to property affordability, property profitability, private-sector indebtedness, the credit cycle, population dynamics and long-term macroeconomic performance.

#### High market downturn risk

The stresses shown in figure 8 for the rest of provinces on Italy's islands incorporate a level that is 50% higher than Scope's standard stresses. This accounts for the portfolio's heavy concentration in this region, and in addition the historical data is quite limited in that region compared to other regions in Italy.

**Figure 8: Portfolio collateral location and Scope assumptions**

Region	North			Centre			South		Islands	
	Milan	Genoa	Others	Rome	Florence	Others	Naples	Others	Metropolita n cities	Rest of provinces
<b>Class A</b>	8.4	9.6	11.3	14.1	11.3	11.3	14.1	25.6	15.3	25.6
<b>Class B</b>	-3.1	-2.9	-2.4	-1.7	-2.4	-2.4	-1.7	1.1	-1.4	1.1
<b>Portfolio distribution</b>	0.6	0.2	0.5	7.3	0.1	3.9	0.0	0.1	24.4	62.9

### 3.2.3. Collateral liquidity risk

#### High NPL collateral liquidity and obsolescence risk

At times of severe economic stress during which NPLs typically accumulate, tight financing conditions and/or restricted access to capital markets drive liquidity risk. During recovery and expansionary phases of the cycle, liquidity risk may persist, mainly due to information asymmetries and collateral obsolescence risk, the latter primarily affecting industrial properties.

Asset illiquidity risk is captured through Scope's rating-conditional fire-sale discount assumptions, as detailed in figure 8 below. These assumptions are based on historical distressed property sales data provided by the servicer and reflect Scope's view that non-residential properties tend to be less liquid, resulting in higher distressed-sale discounts.

**Figure 9: Fire-sale discount assumptions**

Collateral type	% of of collateral value	Class A haircut (A- stress)	Class B haircut (BB- stress)
Residential	51.3	26.7%	21.7%
Non-residential	48.7	32.0%	26.0%

### 3.2.4. Concentration haircuts

Scope has addressed borrower concentration risk by applying a 13.3% recovery haircut on the 10 largest borrowers for the analysis of the class A notes and 3.3% for the analysis of the class B notes.



Scope addresses potential residual claims after security enforcement

No credit to residual claims from corporate borrowers

Partial credit to residual claims from individuals

Unsecured portfolio analysis is based on statistical data

Lifetime recovery rates are recalibrated to capture portfolio seasoning

### 3.2.5. Residual claims after security enforcement

A secured creditor may initiate enforcement actions against a debtor despite the closure of an enforcement action concerning the mortgaged property. Secured creditors generally rank equally with unsecured creditors for amounts that have not been satisfied with the security's enforcement. The creditor's right to recover its claim, whether secured or unsecured, arises with an enforceable title (i.e. a judgment such as an agreement signed before a public notary).

For corporate loans, however, Scope has given no credit to potential further recoveries on residual claims after the security is enforced. In the agency's view, this is due to three practical limitations. Firstly, unsecured recoveries tend to be binary with a high probability of zero recoveries and low probability of 100% recoveries. This typically implies zero or a marginal level of secured residual claim amounts. Secondly, servicers are generally less incentivised to pursue alternative enforcement actions, given that foreclosure proceedings are more cost-efficient. Lastly, recoveries are limited by the receiver, who can decide to close bankruptcy proceedings after a given time.

On the other hand, if the borrower is an individual, the additional time might have a positive impact. For example, the individual may find a new job in the meantime, adding a source of income. For this reason, we have given credit to residual claims on 80% of loans to individuals.

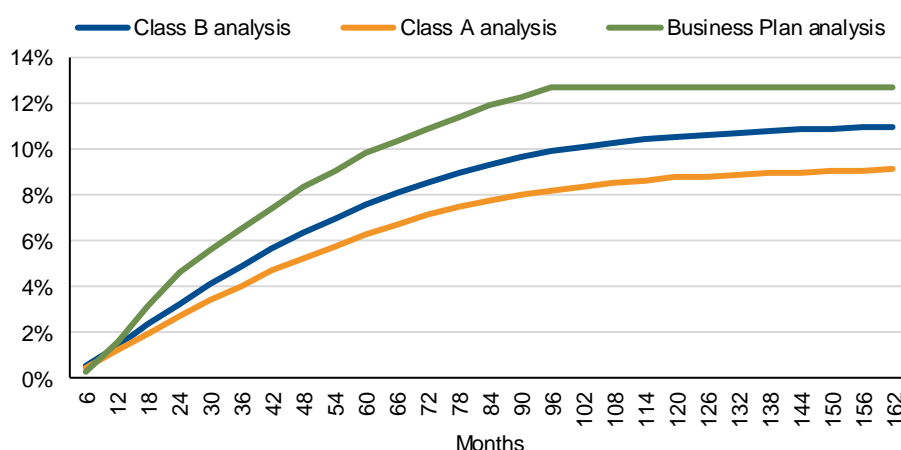
### 3.3. Analysis of unsecured portfolio segment

Figure 9 shows Scope's rating-conditional lifetime gross-collections vectors for the unsecured portfolio segment.

The assumptions for unsecured exposures consider the nature of the recovery procedure – typically a foreclosure process for individuals, and a bankruptcy or non-bankruptcy foreclosure process for corporates.

The assumptions are calibrated to reflect that unsecured borrowers in the portfolio are classified as having defaulted for an average of 6.4 years as of the cut-off date.

**Figure 10: Rating-conditional lifetime unsecured recovery rate**



Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

## 4. Portfolio characteristics

The charts below provide further detail on key portfolio characteristics as of 31 December 2017. Percentage figures refer to gross book value, unless otherwise stated.

### 4.1. Eligible loans

The main eligibility criteria for inclusion in the securitised portfolio are as follows:

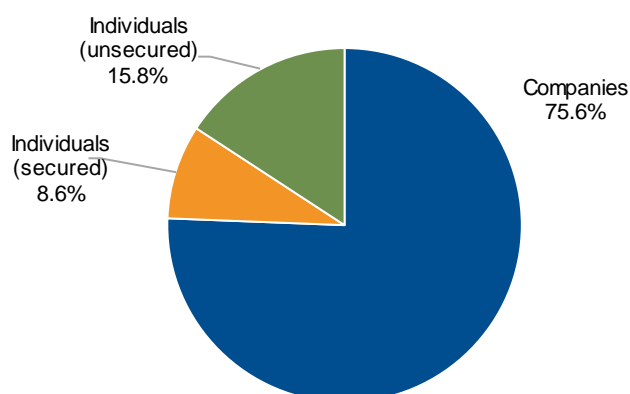
- All loans are denominated in euros.
- All loan agreements are governed by Italian law.
- All borrowers are reported by the originator as defaulted (in sofferenza) to the Italian Credit Bureau (Centrale Rischi) of the Bank of Italy.
- The outstanding amount due in respect of any of the loans does not exceed EUR 22m
- The borrowers are i) individuals resident or domiciled in Italy or ii) entities incorporated under Italian law with a registered office in the country.
- Secured loans are backed by a mortgage over real estate assets located in Italy.
- The borrowers are not employees, managers or directors of any of the bank members of the BPER Banking Group.
- The relevant borrowers are not banks and/or other types of financial institutions.

## 4.2. Detailed stratifications

### 4.2.1. Borrower type

Corporates and individuals represent 75.6% and 24.4% of the pool respectively. The share of loans to individuals is slightly positive for the transaction, mainly due to Scope's view of residual claims after security enforcement, as discussed in the previous section.

**Figure 11: Borrower type**

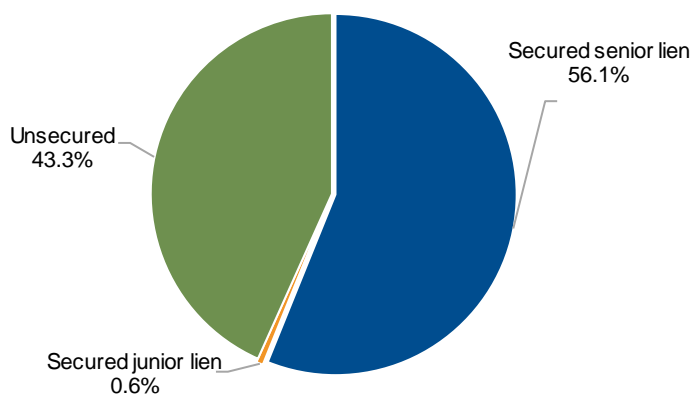


Source: Transaction data tape; calculations and/or assumptions by Scope Ratings

### 4.2.2. Loan type

The amount of secured loans (56.7%) is moderate. Almost all secured loans are backed by first-lien mortgage collateral (98.9%), although a small portion is backed by junior liens (1.1%). Scope has conservatively assumed that recovery proceeds of junior-lien secured loans and unsecured loans will be the same, i.e. no credit is given to junior-lien collateral.

**Figure 12: Loan type**



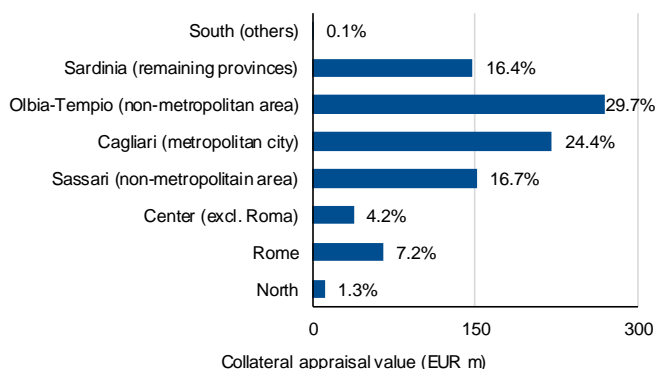
Source: Transaction data tape; calculations and/or assumptions by Scope Ratings

**Heavy geographical concentration on Sardinia is credit-negative**

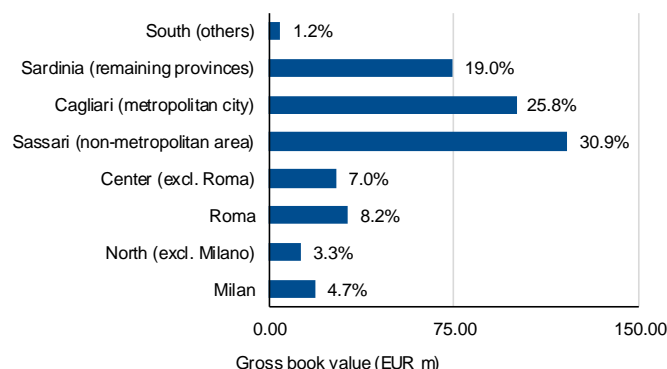
### 4.2.3. Geographical distribution

The location of the portfolio is a negative transaction feature: the borrowers and the security are heavily concentrated in Sardinia (87.3%). Compared with the rest of Italy, this region is less economically dynamic, reflected by less resilient property values (i.e. higher market-value-decline assumptions), and has generally less efficient tribunals, evidenced by higher recovery timings.

**Figure 13: Collateral location**



**Figure 14: Unsecured loans location**



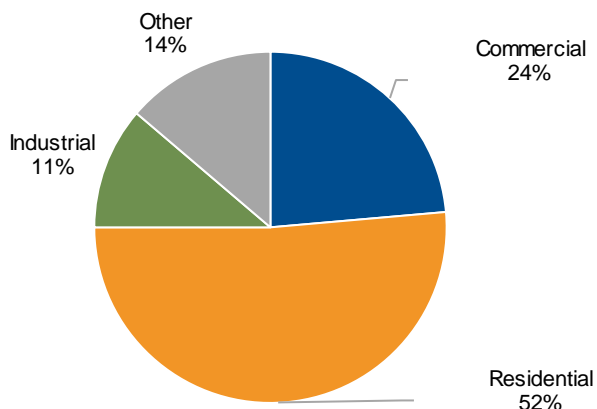
Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

**Lower liquidity stresses applied to residential properties**

### 4.2.4. Collateral type

The collateral is composed of residential (52%), commercial (24%), industrial (11%) and other non-residential assets (14% – e.g. land). The relatively large share of residential properties is positive for the transaction given the better liquidity of such properties, which is reflected in Scope's lower fire-sale discount assumptions.

**Figure 15: Distribution by type of collateral**



Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

**Expected recoveries reflect the secured portfolio's LTV distribution**

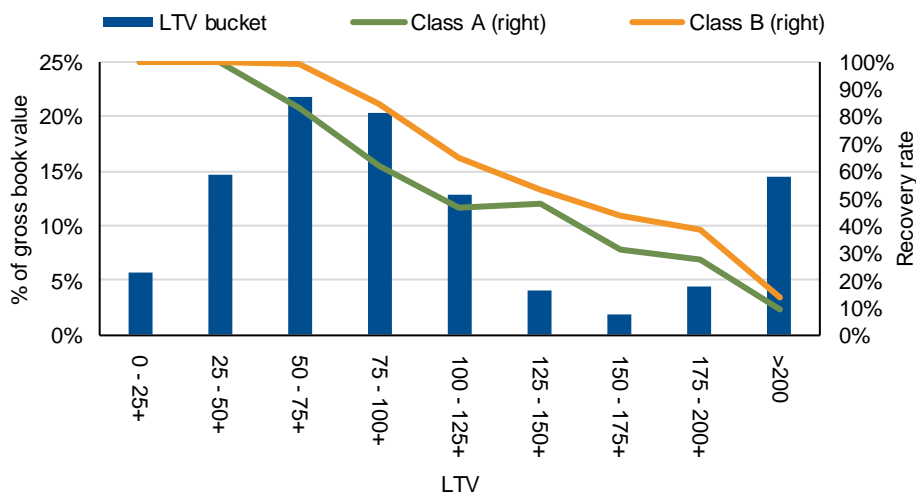
### 4.2.5. Collateral valuations

Figure 16 shows the secured loans' distribution by loan-to-value bucket as well as Scope's rating-conditional recovery rate assumptions for each bucket. This results in weighted average recovery rates for secured loans of 61.4% for class A and 73.7% for class B.

All else equal (e.g. for two portfolios with equivalent loan-to-value ratios on an aggregated basis), collateral is less beneficial if its value is skewed towards low loan exposures. This is because, on a loan-by-loan basis, recovery proceeds are capped by the minimum of

the loan's gross book value and mortgage value. This partly explains why recovery rates flatten at low loan-to-value buckets.<sup>2</sup>

**Figure 16: Secured borrowers' loan-to-value ratio<sup>3</sup>**



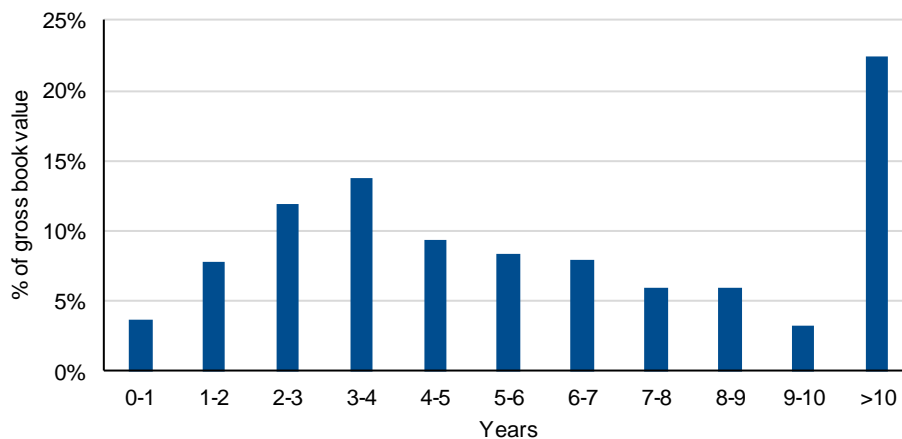
Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

**Ageing of unsecured portfolio reduces expected recoveries**

**4.2.6. Loan seasoning**

The weighted average time since default is around 6.4 years for unsecured exposures. The pool's ageing reduces the expected recoverable amount of unsecured loans significantly, since most recoveries are concentrated in the first years after a default, according to historical vintage data.

**Figure 17: Unsecured portfolio seasoning distribution as of cut-off date (31.12.2017)**



Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

**Lower recovery stresses due to high portion of non-bankruptcy proceedings**

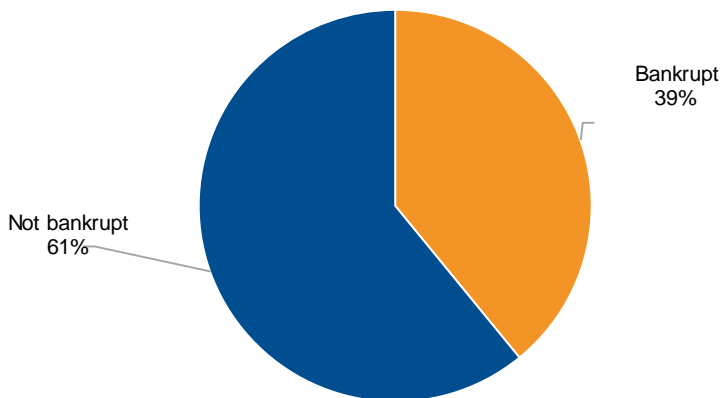
**4.2.7. Borrower status**

A reasonable share of the portfolio's borrowers is not under bankruptcy proceedings. This is credit-positive as non-bankruptcy processes are generally less complex, have a shorter duration and are less costly. Non-bankruptcies also result in higher expected recoveries for unsecured exposures, given the focus on maintaining borrowers as a going concern rather than liquidating assets.

<sup>2</sup> Another reason is that syndicated loans are concentrated in the low LTV buckets for this portfolio. The reported LTVs of syndicated loans are downward-biased because the loan amount reflects only the syndicated percentage whereas the appraisal reflects the total collateral value.

Figure 18 below shows the main legal proceedings for each loan (one loan can have several).

**Figure 18: Borrower status assumptions**



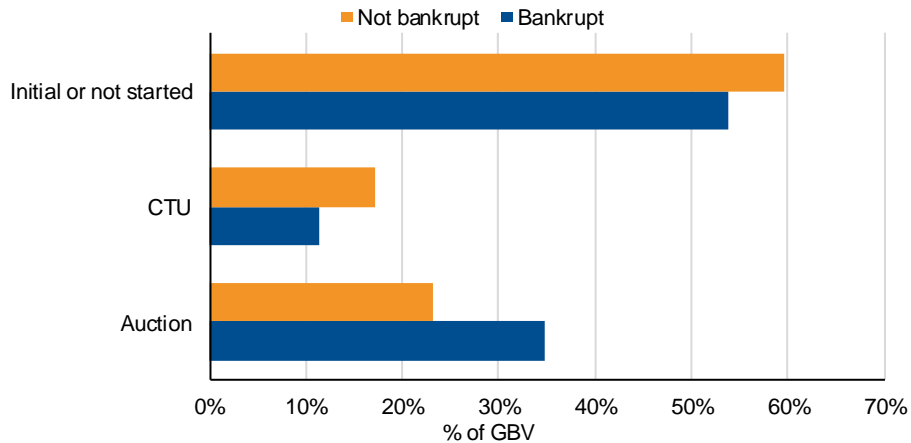
Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

High portion of initial or non-started proceedings drive relatively back-loaded collections

**4.2.8. Recovery stage of secured exposures**

A large portion of the secured loans is in initial stages, which partly explains the long expected weighted average life of portfolio collections. Figure 19 below shows the stage of legal proceedings for bankruptcies and non-bankruptcies in relation to secured loans.

**Figure 19: Secured loans – recovery stage by borrower status**



Sources: Transaction data tape; calculations and/or assumptions by Scope Ratings

**Combined waterfall**

**5. Key structural features**

**5.1. Priority of payments**

On each semi-annual payment date, the funds available to the issuer (i.e. collection amounts received from the portfolio, the cash reserve, and payments received under the interest rate cap agreement) will be used in the following simplified order of priority:

1. Senior fees (costs, taxes and expenses, fees for services provided to the issuer by entities such as the servicer, back-up servicer, calculation agent, etc.)
2. Interest on limited-recourse loan
3. Fees payable to GACS guarantor, regarding GACS guarantee
4. Cap replacement premium, if available cap collateral cannot cover the premium in full
5. Recovery-expense reserve amount
6. Interest on class A notes
7. Amounts due under GACS guarantee (other than amounts paid under item 3)
8. Cash reserve target amount
9. Principal on limited-recourse loan
10. Interest on class B, provided an interest subordination event has not occurred
11. Principal on class A notes
12. Interest on class B notes, if an interest subordination event has occurred
13. Pro rata and pari passu: i) principal on class B notes, and ii) if a servicer underperformance subordination event has occurred, a portion of the servicer performance fees
14. Junior payments

An interest subordination event occurs in the event of any of the following:

- 1) The cumulative collection ratio<sup>4</sup> is lower than 90%
- 2) The present value cumulative profitability ratio<sup>5</sup> is lower than 90%
- 3) An interest payment is missed on the class A notes

**Reversible but tight class B subordination triggers**

The subordination event is curable, in which case all class B interest due and unpaid will become senior to the repayment of class A principal amounts.

If, on any payment date, the servicer fails to deliver the servicer report, the calculation agent will prepare a provisional payment report in which the cash reserve and the portfolio collections from the last payment date will be earmarked as funds available to the issuer. These funds will be used to cover items 1 to 8 in the above order of priority (except for the servicer's fees). The remaining amounts due will be paid on the next payment date.

**Accelerated waterfall protects the senior noteholders upon a liquidity or trigger event**

Upon the occurrence of a trigger event – i.e. if there is no GACS guarantee, failure to pay interest due on the senior notes or any principal amount due and payable on the notes on any payment date; if there is a GACS guarantee on the senior notes, failure to pay

<sup>4</sup> 'Cumulative collection ratio' is defined as the ratio between i) the cumulative net collections since the cut-off date; and ii) the net expected collections. Net collections are the difference between the gross collections and the recovery expenses.

<sup>5</sup> 'Present value cumulative profitability ratio' is defined as the ratio between i) the sum of the present value of the net collections of the receivables which are exhausted debt relationships, and ii) the sum of the target price (as defined in the servicer's base case scenario of the business plan) of all receivables which are exhausted debt relationships. The present value will be calculated using an annual interest rate of 8.2%.

interest or principal due on the notes at the final maturity date; a breach of obligations, insolvency, or unlawfulness – the notes will come due and will be payable in the following accelerated order of priority:

1. Senior fees (costs, taxes and expenses, fees for services provided to the issuer by entities such as the servicer, back-up servicer, calculation agent, etc.)
2. Interest on limited-recourse loan
3. Fees payable to GACS guarantor, regarding GACS guarantee
4. Recovery-expense reserve amount
5. Interest on class A notes
6. Principal on limited-recourse loan
7. Principal on class A notes
8. Amounts due under GACS guarantee (other than the amounts paid under item 3)
9. Interest on class B notes
10. Pro rata and pari passu: i) principal on class B notes, and ii) if a servicer underperformance subordination event has occurred, a portion of the servicer performance fees
11. Junior payments

### **5.2. Alignment of interests (servicer performance fees)**

The servicing fee structure (detailed in section below) links the portfolio's performance with the level of fees received by the servicer, which mitigates potential conflicts of interest between the servicer and noteholders. In the case of underperformance, a portion of the fees will be paid on a junior position in the priority of payments. The servicer is therefore incentivised to maximise recoveries and comply with the initial business plan.

An overview of the servicer's activities and calculations, prepared by the monitoring agent, mitigates operational risks and moral hazard that could negatively impact the interests of noteholders. This risk is further mitigated by the discretionary servicer termination event should the servicer underperform.

### **5.3. Servicing structure**

Prelios will perform servicing activities and will be monitored by the monitoring agent.

Under the servicing agreement, servicer is responsible for the servicing, administration, and collection/recovery of receivables as well as the management of legal proceedings.

Securitisation Services S.p.A. has been appointed as back-up master servicer.

The monitoring agent (Zenith Service S.p.A.) is tasked with providing an overview of the servicer's activities. This agent will verify the calculations of key performance ratios and amounts payable by the issuer, as well as perform controls based on a random sample of loans.

The monitoring agent will report to a committee that will represent both junior and mezzanine noteholders' interests. The committee can authorise the revocation and replacement of the servicer, subject to the approval of the noteholders' representative. The monitoring agent can also authorise the sale of the receivables, the closure of debt positions, as well as the payment of additional costs and expenses related to recovery activities.

**Fee structure mitigates potential conflicts of interest**

**Monitoring function protects noteholders' interests**

### 5.3.1. Servicing fees

The servicers will be entitled to i) a base fee, calculated at each payment date on the outstanding portfolio's gross book value; and ii) a performance fee, calculated at each payment date on the period's collections net of legal costs (collectively, the servicing fees).

In addition to the performance fees, a servicer fee payment subordination trigger further incentivises the servicer to comply with or outperform business plan targets issued at closing date. Subordinated fees will be paid at a more junior position in the order of payments, either together with the class B principal payments or with the junior notes' principal payment.

### 5.3.2. Servicer termination events

A servicer termination event includes i) insolvency, ii) failure to pay due and available amounts to the issuer within two business days, iii) failure to deliver or late delivery of a semi-annual report, iv) unremedied breach of obligations, v) unremedied breach of representation and warranties, vi) no longer being legally eligible to perform portfolio servicing activities under the servicing agreement, and vii) substitution of the special servicer due to underperformance. From the sixth collection period (i.e. 30 months from closing), the special servicer can be replaced in certain instances of consistent underperformance.

Upon the occurrence of events iii), vi), or vii), Prelios will be revoked from its portfolio servicing activities. Upon all other events, the back-up servicer will replace the servicer regarding master-servicing activities. In all cases, the monitoring agent and the back-up servicer will cooperate to find a special servicer to perform the servicing, administration, and collection/recovery of receivables. If there is no back-up servicer, the monitoring agent will help to find a suitable replacement for the servicer.

## 5.4. Liquidity protection

A cash reserve of around 4.9% of the outstanding balance on the class A and B notes will be funded at closing through a limited-recourse loan provided by the originators.

The cash reserve will amortise with no floor during the life of the transaction. The target amount of cash reserve at each payment date will be equal to 4.9% of the outstanding balance of class A and B notes.

The cash reserve will be available to cover any shortfalls in interest payments on the class A notes as well as any items senior to them in the priority of payments.

Class B will not benefit from any liquidity protection.

## 5.5. Interest rate hedge

On the asset side, due to the non-performing nature of the securitised portfolio, the issuer will not receive regular cash flows and the collections will not be linked to any defined interest rate. On the liability side, the issuer will pay a floating coupon on the notes, defined as six-month Euribor plus a fixed margin.

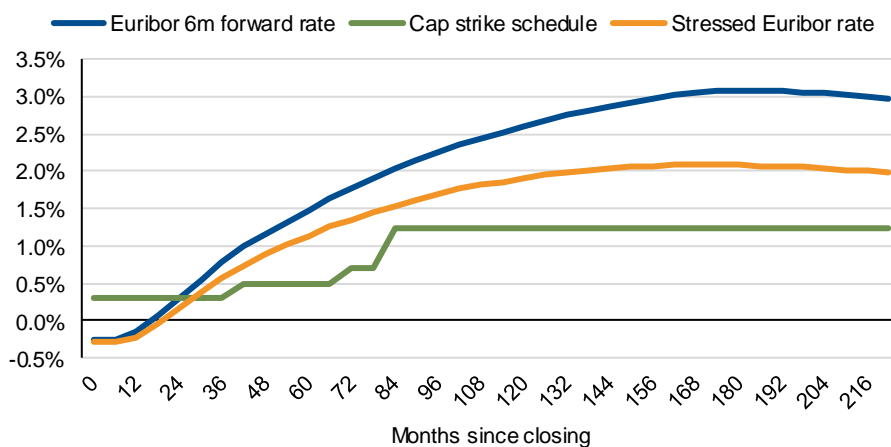
An interest rate cap, with a progressively increasing strike (cap rate) as shown in figure 20, partially mitigates the risk of increased liabilities on the notes due to a rise in Euribor. The cap counterparty is Banca IMI S.p.A.

Cash reserve protects liquidity of the senior noteholders

Structural features strongly mitigate the senior noteholders' exposure to rising Euribor levels



**Figure 20: Interest rate cap**



Source: Transaction documents; calculations and/or assumptions by Scope Ratings

The notional of the cap agreement will be the scheduled notional amount in each period.

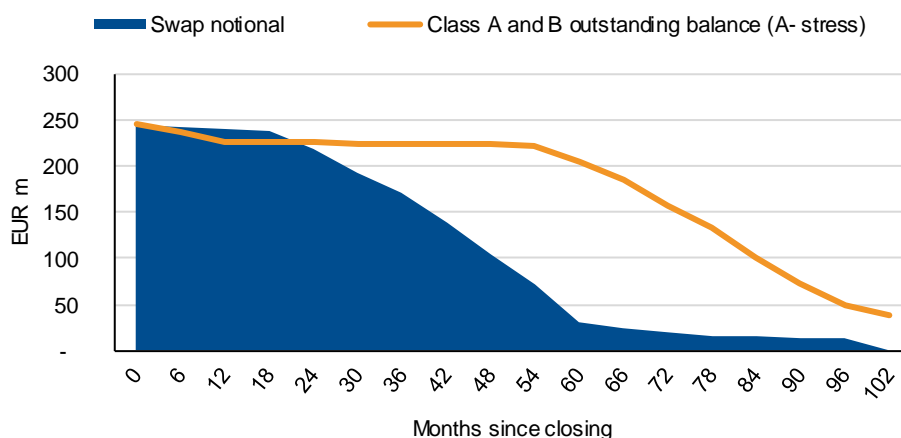
If the outstanding amount of the rated notes is lower than the notional amount, an additional termination event will apply on the difference between these two amounts and the notional amount reduced accordingly. The cap counterparty will pay this amount to the issuer, which will use it as available funds.

Slower than expected note amortisation could reduce the effectiveness of the swap

Scope does not expect interest rates to pose a material risk. However, if the rated notes were to amortise slower than the scheduled notional amount defined in the cap agreement, a portion of the outstanding notes would be unhedged.

Figure 21 shows a comparison between the swap notional schedule and the outstanding balances on the notes under Scope's A- rating stress.

**Figure 21: Cap notional schedule vs outstanding class A and class B notes**



Source: Transaction documents; calculations and/or assumptions by Scope Ratings

## 6. Cash flow analysis and rating stability

Scope has analysed the transaction's specific cash flow characteristics. Asset assumptions have been captured through rating-conditional gross recovery vectors. The analysis captures the capital structure, an estimate of legal costs based on the servicer's business plan, and annual senior fees of about EUR 200,000. We have taken into account the reference rate payable on the notes based on the six-month Euribor forward curve, considering the progressive cap rates of the swap.



**Class A rating reflects high performance stability and liquidity protection**

**Class B rating reflects lack of liquidity protection**

**No mechanistic ratings cap**

**Counterparty risk does not limit the transaction's rating**

The A-SF rating assigned to the class A notes reflects the expected losses over the instrument's weighted average life commensurate with the idealised expected loss table reported in Scope's General Structured Finance Ratings Methodology.

The BB-SF rating assigned to the class B addresses the high volatility of the ratings to Scope's input assumptions, and the lack of liquidity protection.

Scope tested the resilience of the ratings against deviations from expected recovery rates and recovery timing. This analysis has the sole purpose of illustrating the sensitivity of the ratings to input assumptions and is not indicative of expected or likely scenarios. Scope tested the sensitivity of the analysis to deviations from the main input assumptions: i) recovery rate and ii) recovery timing.

The following shows how the results for the class A notes change compared to the assigned credit rating in the event of:

- A decrease in secured and unsecured recovery rates by 20%, three notches; and
- An increase in the secured recovery lag by two years, one notch.

The following shows how the results for the class B notes change compared to the assigned credit rating in the event of:

- A decrease in secured and unsecured recovery rates by 10%, zero notches; and
- An increase in the secured recovery lag by one year, one notch.

## **7. Sovereign risk**

Sovereign risk does not limit any of the ratings. The risks of an institutional framework meltdown, legal insecurity or currency convertibility problems, due to Italy's hypothetical exit from the Eurozone, are not material for the notes' rating.

For more insight into Scope's fundamental analysis on the Italian economy, refer to the agency's rating report on the Republic of Italy dated 30 June 2017.

## **8. Counterparty risk**

The transaction is exposed to counterparty risk from i) Banco di Sardegna S.p.A., the originator, regarding representation and warranties and the eventual payments that might be made by the borrowers, especially for the cash-in-court cases, ii) Prelios, the servicer, iii) Securitisation Services S.p.A, the back-up master servicer, calculation agent, and representative of the noteholders, iv) Zenith Service S.p.A., the monitoring agent, v) BNP Paribas Securities Services (Milan Branch), the account bank, cash manager, and principal paying agent, and vi) Banca IMI S.p.A., the cap counterparty. In Scope's view, none of these exposures limits the maximum ratings achievable by this transaction.

The issuer's accounts will be held at BNP Paribas Securities Services, Milan Branch<sup>6</sup>. There is a rating trigger for the replacement of the account bank, and a replacement would be found within 30 days.

Scope has analysed the credit counterparty risk exposure to BNP Paribas Securities Services, Milan Branch and Banca IMI S.p.A. based on public ratings. The latter's parent company, BNP Paribas SA, is rated AA-/S-1+/Stable by Scope.

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<sup>6</sup> The quota capital account will be held at Monte dei Paschi di Siena S.p.A., and there is no rating trigger for the bank's replacement.

Collections are paid directly to the issuer

### 8.1. Servicer disruption risk

A servicer disruption event may have a negative impact on the transaction's performance. However, the back-up master servicer and the monitoring agent will assist the issuer in finding a suitable replacement for the special servicing activities in the event of a special servicer disruption (see section 5.3.2). In the case of a master-servicer disruption, the back-up servicer is committed to step in within 45 days. After the master servicer is replaced, the special servicer and the monitoring agent will assist the issuer in finding a new master back-up servicer.

The back-up master servicer's role will be revoked if it fails to find a suitable replacement for the special servicer within 45 days.

### 8.2. Commingling risk

Commingling risk is limited as debtors will be instructed to pay directly to an account in the name of the issuer. In limited cases where the servicer received payments from a debtor, the servicer would transfer the amounts within two business days.

### 8.3. Claw-back risk

As of the execution date of the transfer agreement, the originator will provide i) a 'good standing' certificate from the Chamber of Commerce, ii) a solvency certificate signed by a representative duly authorised, and iii) a certificate from the bankruptcy court (tribunale civile – sezione fallimentare) confirming that the originator is not subject to any insolvency or similar proceedings (where available). This mitigates claw-back risk, as the issuer can prove it was unaware the originator was insolvent as of the transfer date.

Pursuant to Italian claw-back rules (article 67, paragraph 1, of the Italian Bankruptcy Law) the following transactions may be voided if they were carried out during the year prior to the bankruptcy declaration, unless the debtor's counterparty can prove it was unaware of the debtor's insolvency at the time of the transaction: i) transactions where the consideration paid by the debtor exceeds more than 25% of what was given or promised to it; ii) payments not made in cash or other normal means of payment; and iii) liens granted for pre-existing debts not yet due and payable. Liens granted for debts due and payable may also be voided under the same conditions and their suspect period reduced to six months.

In addition, according to article 67, paragraph 2, of the Italian Bankruptcy Law, 'ordinary course' transactions (i.e. conveyances for adequate consideration, payment of due debts, and granting of security interests upon contracting a debt) may be voided if i) they were carried out in the six months prior to the bankruptcy declaration; and ii) the bankruptcy receiver can prove that the debtor's counterparty was aware of the debtor's insolvency at the time of the transaction.

With respect to securitisation transactions carried out under the Italian Securitisation Law, the one-year and six-month suspect periods set out by article 67 of the Italian Bankruptcy Law are reduced to six months and three months, respectively, in the event of the originator's insolvency.

Hence, in light of the above, assignments of receivables made under the Italian Securitisation Law are subject to claw-back:

i) pursuant to article 67, paragraph 1, of the Italian Bankruptcy Law, if the bankruptcy declaration of the relevant originator is made within six months from the purchase of the relevant portfolio of receivables, provided the receivables' sale price exceeds its value by more than 25% and the issuer cannot demonstrate it was unaware of the originator's insolvency, or

ii) pursuant to article 67, paragraph 2, of the Italian Bankruptcy Law, if the adjudication of bankruptcy of the relevant originator is made within three months from the purchase of the relevant portfolio of receivables, provided the receivables' sale price does not exceed its value by more than 25% and the originator's insolvency receiver can demonstrate that the issuer was aware of the originator's insolvency.

#### **8.4. Enforcement of representations and warranties**

The issuer will rely on representations and warranties given by the originator in the transfer agreement. If a breach of a representation and warranty materially and adversely affects a loan's value, the issuer will request the originator to indemnify the issuer for damages deriving from this. Upon receiving notification of the breach of representations and warranties the seller will need to indemnify the issuer within 10 business days.

However, the above-mentioned guarantee is enforceable by the issuer only within 30 months. In addition, the total indemnity amount will be paid up to a maximum 30% of the purchase price for the pool, and will be subject to a deductible of EUR 50,000 on a portfolio basis, and EUR 5,000 on a single-loan basis.

The issuer (through the servicer) may sell part of the portfolio to third parties. A portion of the sale proceeds (equal to the potential indemnity of the transferred receivables) will not form part of the issuer available funds until the expiry of the period in which the guarantee can be enforced.

### **9. Legal structure**

#### **9.1. Legal framework**

The transaction documents are governed by Italian law, whereas English law governs the interest cap agreements and the deed of charge.

The transaction is fully governed by the terms in the documentation and any changes are subject to the risk-takers' consent, with a superior voting right of the most senior noteholders at the date of the decision.

#### **9.2. Use of legal opinions**

Scope had access to the legal opinions produced for the issuer, which provide comfort on the legally valid, binding and enforceable nature of the contracts.

### **10. Monitoring**

Scope will monitor this transaction based on the performance reports as well as other public information. The ratings will be monitored continuously and reviewed at least twice a year, or earlier if warranted by events.

Scope analysts are available to discuss all the details of the rating analysis, the risks to which this transaction is exposed, and the ongoing monitoring of the transaction.

### **11. Applied methodology**

For the analysis of this transaction Scope applied its General Structured Finance Instruments Rating Methodology and Methodology for Counterparty Risk in Structured Finance, both available on [www.scoperatings.com](http://www.scoperatings.com).

Representations and warranties limited by time and amount

Transaction governed by Italian law

Continuous rating monitoring



# 4Mori Sardegna S.r.l.

## Non-Performing Loans (NPL)

### Summary appendix – deal comparison

Transaction	4Mori Sardegna	Aragorn NPL 2018	Red Sea SPV	Siena NPL 2018	Bari NPL 2017	Elrond NPL 2017
Closing	Jun-18	Jun-18	Jun-18	May-18	Dec-17	Jul-17
Originators	Banco di Sardegna	Creval	Banco BPM, BPM	MPS	BPB, CRO	Creval
Master servicer	-	Italfondriario		Credito Fondiario	Prelios	Prelios
Special servicer	Prelios	Cerved, Credito Fondiario	Prelios	Juliet, Italfondriario, Credito Fondiario, Prelios	Prelios	Cerved
General portfolio attributes						
Gross book value (EUR m)	900	1,676	5,113	23,939	345	1,422
Number of borrowers	11,412	4,171	12,651	79,669	1,565	3,712
Number of loans	20,098	8,289	33,585	545,939	4,569	6,951
WA seasoning (years)	4.8	2.5	3.8	4.4	4.5	3.7
WA seasoning (years) - unsecured portfolio	6.4	3.2	3.5	4.8	N/A	N/A
WA LTV buckets (% of secured portfolio)						
bucket [0-25]	5.7	2.0	2.3	5.7	N/A	3.6
bucket [25-50]	14.6	4.2	8.1	12.4	N/A	11.1
bucket [50-75]	21.8	8.2	14.7	16.8	N/A	13.7
bucket [75-100]	20.4	13.9	18.1	17.0	N/A	19.6
bucket [100-125]	12.8	22.3	16.7	13.4	N/A	24.6
bucket [125-150]	4.0	17.9	12.0	8.3	N/A	8.6
bucket [150-175]	1.8	11.9	6.6	5.3	N/A	4.8
bucket [175-200]	4.4	3.7	4.8	3.9	N/A	1.6
bucket > 200	14.5	16.0	16.7	17.1	N/A	12.5
Cash in court (% of total GBV)	18.3	0.5	3.2	N/A	N/A	2
Loan types (% of total GBV)						
Secured first-lien	56.1	67.3	70.6	41.6	53.6	66.4
Secured junior-lien	0.6	8.1	1		2.5	7.6
Unsecured	43.3	24.6	28.4	58.4	43.9	26.0
Syndicated loans	3.3	1.8	1.4	5.7		
Debtors (% of total GBV)						
Individuals	24.4	9.9	28.4	19	12	12.7
Corporates or SMEs	75.6	90.1	71.6	81	88	87.3
Procedure type (% of total GBV)						
Bankrupt	39.1	55.0	49.4	36.6	46.5	57.6
Non-bankrupt	60.9	45.0	50.6	63.4	53.5	42.4
Other	-	-	-	-	-	-
Not started						
Borrower concentration (% of total GBV)						
Top 10	8	8.3	1.8	2.1	28.2	13.4
Top 100	27.7	39.5	9.1	9.5	69	42.4
Borrower regional concentration (% of total GBV)						
North	1.3	58.5	67.8	35.9	18.3	61.6
Centre	11.5	18.4	20.7	36	14.1	14.6
South	87.4	23.1	11.4	28.1	67.6	23.8
Collateral type (% of secured loans GBV)						
Residential	51.3	43.4	54.8	28.2	43	32.6
Commercial	23.7	22	15.4			32.4
Industrial	11.3	15.3	9.4	71.8	40	23.2
Land	6.2	0.0	8.6			8.7
Other or unknown	7.6	19.3	11.8		18	3.4
Valuation type (% of secured loans GBV)						
Full or drive-by	38.8	96.1	74.0	10		70.8
Desktop	40.0	1.2	14.5	65		4.0
CTU	20.5	2.7	11.5	15	3.69	23.6
Other	0.6	0	0	10	0	0.5
Secured portfolio procedure stage (% of total GBV)						
Initial	61.2	66.6	64.4	52.6	55.5	36.1
CTU	18.3	23.4	9.1	5.4	14.2	10.7
Auction	20.5	4.7	21.3	35.2	26.5	36.4
Distribution	0	5.5	5.2	6.7	3.8	16.8
Summary of assumptions (BBB rating conditional stress)						
Remaining lifetime recovery rate (%)						
Secured (=net LTV after all stresses)	66.2	48.3	62.8	58.6	51.8	61.7
Unsecured	9.9	16.8	12.3	9.2	11.1	13.7
<b>Total</b>	<b>41.8</b>	<b>40.6</b>	<b>48.0</b>	<b>29.8</b>	<b>33.1</b>	<b>47.1</b>
Weighted average life of collections (years)						
Secured	7.2	7.9	6.8	N/A	N/A	4.8
Unsecured	4.2	4.2	4.1	N/A	N/A	3.1
<b>Total</b>	<b>6.9</b>	<b>7.9</b>	<b>6.6</b>	<b>N/A</b>	<b>N/A</b>	<b>4.6</b>
Structural features						
Liquidity reserve (% of class A notes)	4.9 (% of A and B)	5.0	4.375 (% of A and B)	3.5	4.0	4.0
Class A Euribor cap strike	0.3%-1.25%	0.0-0.1%	0.5-2.0%	0.5-3.0%	0.10%	0.50%
Class A						
% of GBV	22.2	30.5	32.5	12.1	25.3	33.0
Credit enhancement	77.8	69.5	67.5	87.9	74.7	67.0
Class B						
% of GBV	1.2	4.0	3	3.5	3.1	3.0
Credit enhancement	76.6	65.5	64.5	84.4	71.6	64.0
Final rating						
Class A	A-	BBB-	BBB	BBB+	BBB	BBB-
Class B	BB-	B	NR	NR	B+	B+

Sources: Transactions' preliminary data tapes; calculations and assumptions by Scope Ratings. Stratifications for 4 Mori Sardegna are based on the Scope-adjusted pool.



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