## Structured Finance

Scope

## Hefesto STC, S.A. – Guincho Finance Portuguese Non-Performing Loans ABS

Ratings

Tranche	Rating	Size (EUR m)	% of Assets (GBV¹)	Credit enhancement CE <sup>2</sup> (%)	Coupon	Final maturity
Class A	BBB- <sub>SF</sub>	84.0	17.4	82.6	6m-Euribor + 2.0%	Nov 2038
Class B	B- <sub>SF</sub>	14.0	2.9	79.7	6m-Euribor + 6.0%	Nov 2038
Class J	NR	25.0	5.2	74.5	6m-Euribor + 12% & additional return	Nov 2038
Class R <sup>3</sup>	NR	3.1	0.6	N/A	6m-Euribor + 2%	Nov 2038

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.

1 Gross book value (GBV) of the securitised portfolio at closing (EUR 482.1m)

2 CE is computed as a percentage of the non-performing-loan portfolio's gross book value. It is provided by both a % purchase price discount and the principal subordination of the mezzanine and junior tranches.

3 Class R will fund the liquidity reserve and it is repaid with the funds released from the liquidity reserve when it amortises

## **Transaction details**

Purpose	Risk transfer
Issuer	Hefesto STC, S.A.
Originator	Banco Santander Totta S.A.
Servicers	Whitestar Asset Solutions S.A. "Whitestar", HG PT, Unipessoal, Lda. "Hipoges", and Proteus Asset Management, Unipessoal, Lda. "Altamira"
Portfolio cut-off date	31 July 2018
Issuance date	16 November 2018
Payment frequency	Semi-annual (May and November)
Arranger	J.P. Morgan Securities plc

The transaction is a static cash securitisation of a Portuguese NPL portfolio worth around EUR 482m by gross book value (GBV) actively serviced by Whitestar, Hipoges and Altamira. The pool is comprised of senior secured (37%), junior secured (12%) and unsecured (51%) loans. The loans were extended to companies (82%), individuals (14%) and self-employed individuals (ENI) (4%) and were originated by Banco Santander Totta S.A. Secured loans are backed by residential and non-residential properties (58.5% and 41.5% of the property value, respectively). The issuer will acquire the portfolio on the transfer date, 15 November 2018, but is entitled to all portfolio collections received since 31 July 2018 (portfolio cut-off date).

There are three classes of notes with fully sequential principal amortisation: senior class A, mezzanine class B, and junior class J. The class B interest rate payments rank senior to class A principal. However, they will be subordinated if the cumulative amounts collected are around 10% below the level indicated in the servicer's business plan, or if the present value cumulative profitability ratio falls below 90%.

The Class R note is used to fund the liquidity reserve at issuance. Class R interest is paid senior to class A interest and class R is amortised with the funds released from the liquidity reserve when it amortises.

## Rating rationale (summary)

The ratings are primarily driven by the expected recovery amounts and timing of collections from the NPL portfolio. The recovery amounts and timing assumptions consider the portfolio's characteristics as well as Scope's economic outlook for Portugal and assessment of the special servicers' capabilities. The ratings are supported by the structural protection provided to the notes, the absence of equity leakage provisions, liquidity protection, and an interest rate hedging agreement.

Ratings

 $\mathbf{SCOPE}$ 

## Rating team

David Bergman +39 02 3031 5838 d.bergman@scoperatings.com

Mehdi Kheloufi-Trabaud m.kheloufi@scoperatings.com

Guillaume Jolivet +49 30 27891 241 g.jolivet@scoperatings.com

#### **Related Research**

Non-Performing Loan ABS Rating Methodology

Methodology for Counterparty Risk in Structured Finance

Scope Ratings GmbH Lennéstraße 5 10785 Berlin

 Tel.
 +49 30 27891 0

 Fax
 +49 30 27891 100

 info@scoperatings.com

 www.scoperatings.com

in 🍠 Bloomberg: SCOP



Portuguese Non-Performing Loans ABS

The ratings also address exposures to the key transaction counterparties: i) the special servicers: Whitestar Asset Solutions, S.A. 'Whitestar', HG PT, Unipessoal, Lda. 'Hipoges', and Proteus Asset Management, Unipessoal, Lda. 'Altamira'; ii) the asset manager: GAM – Gncho Asset Management S.A.; iii) the asset manager's shareholder: Guincho Asset Management Holdings D.A.C.; iv) the transaction manager, payment account bank, cap collateral account bank and principal paying agent: Citibank, N.A., London Branch; v) the Portuguese paying agent: Citibank Europe plc; vi) the account bank and originator: Banco Santander Totta S.A.; vii) the monitoring agent: KPMG & Associados – SROC, S.A.; viii) the interest rate cap counterparty: Banco Santander S.A.; and ix) the common representative: Citicorp Trustee Company Limited. In our view, none of these exposures limits the maximum ratings achievable by the transaction. In order to assess the issuer's exposure to credit counterparty risks, Scope considered available risk substitution provisions in the transaction, the publicly available ratings on Citibank and Banco Santander Totta and the AA-/S1+ ratings on Banco Santander assigned by Scope.

The agreed upon procedures made available to Scope reported more errors in the data tape than are normally seen in European NPL transactions. However, most of the errors found will, if corrected, have a positive impact on the class A and B notes. The transaction documentation contains representations and warranties whereby breaches reported two years after closing can be indemnified by the seller.

## **Rating drivers and mitigants**

## **Positive rating drivers**

**Substantial credit enhancement.** The 82.6% credit enhancement (CE) level for the class A is high relative to several other NPL transactions, providing extra protection for these notes (CE is computed as a percentage of the nonperforming-loan portfolio's gross book value. It is provided by both a % purchase price discount and the principal subordination of the mezzanine and junior tranches).

**Presence of an asset manager.** If the properties are not sold in the first auction they will be awarded to the asset manager who can sell them in the open market. Such a sale should, in general, lead to higher recoveries because the open market is more dynamic, with more potential buyers than auctions.

**Many proceedings at an advanced stage.** Around 54% of the loans are in the sale/distribution phase which reduces the expected time for collections compared with loans in the initial phases of legal proceedings.

**Updated valuations.** The servicers updated most of the properties' appraisals in Q3 2018. Servicer evaluations are generally more accurate than historical bank valuations. Around 35% of the appraisals rely on a desktop procedure and the remainder are either drive-by or full valuations, which tend to be more accurate than desktop valuations.

**Geographically diversified pool.** The portfolio is well distributed between different parts of Portugal with some concentration in the Lisbon and Porto areas. The Lisbon area benefit from the country's most dynamic economic conditions and the most favourable housing market.

**Interest rate cap.** The transaction benefits from an interest rate cap which mitigates the interest rate risk between the asset recoveries and the floating rate on the notes. The notional of the interest rate cap is larger than the expected class A notional in the stress applied to the class A analysis.

## Negative rating drivers and mitigants

**Low recoveries on unsecured positions.** Approximately 51% of the pool consists of unsecured loans. Servicers' historical data for unsecured loan suggest low recovery rates, particularly for corporate borrowers which constitute around 91% of the unsecured pool.

**High loan-to-value ratios (LTVs).** Around half of the secured loans have an estimated LTV (calculated as the GBV divided by the updated property valuation) above 150%. Recoveries for high LTV loans are generally lower and in case of external senior liens the expected recoveries for the junior liens are particularly low.

**Junior liens**. 12% of the pool's gross book value consist of loans secured by second or higher-ranking liens. Recoveries on junior liens are generally lower because senior liens benefit from the first claim from asset sale proceeds. Scope received detailed information on prior liens and could therefore deduct the senior lien amount from the proceeds of the property sale when analysing junior lien loans.

**Extra time to sell properties.** The asset manager will sell awarded properties on the open market using brokers. The time required to sell can represent an important part of the total recovery process because it depends on the regional property market and the conditions of the property.

**Low granularity.** Around 28% of the portfolio is concentrated on the top 10 borrowers, which expose the transaction to a potential increased performance volatility depending on the recoveries from those few borrowers.

**Seasoned unsecured portfolio.** The weighted average time since default as of closing is approximately 3.4 years for the unsecured portion. Most unsecured recoveries are realised in the first years after a default, according to historical data.



Portuguese Non-Performing Loans ABS

### Upside rating-change drivers

**Legal and other costs.** Scope factored in legal expenses and other costs for collections as detailed in the servicer's business plan. A decrease in legal expenses and other costs 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 3.1 years according to the servicers' aggregated business plan. This is about 12 months faster than the recovery timing vector applied in our analysis.

## Downside rating-change drivers

Asset manager underperformance. The ratings could be negatively affected if the sale of properties in the open market by the asset manager takes longer than expected, or if sales are concluded at lower prices than expected.

**Collateral appraisal values**. NPL collateral appraisals are more uncertain than standard appraisals because repossessed assets are more likely to deteriorate in value. An upward bias of appraisals values beyond the liquidity stresses captured by Scope could result in a rating downgrade.



Portuguese Non-Performing Loans ABS

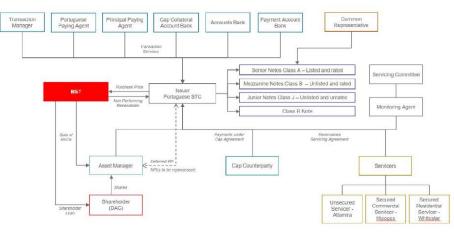
#### **Table of contents**

1.	Transaction summary	4		
2.	Macroeconomic environment	5		
3.	Portfolio analysis	7		
4.	Portfolio characteristics	12		
5.	Key structural features	16		
6.	Cash flow analysis and rating stability	20		
7.	Sovereign risk	20		
8.	Counterparty risk	21		
9.	Legal structure	22		
10.Monitoring				
11.Applied methodology				

## 1. Transaction summary

The transaction structure comprises three tranches of sequential principal-amortising notes, an amortising liquidity reserve (funded through the issuance of the class R notes) equal to 3% of the outstanding class A, three expense accounts with a total amount equal to around EUR 1.25m, and an interest rate cap agreement.

## Figure 1: Transaction diagram:



Sources: Transaction documents.

We have analysed the pool as per the cut-off date on 31 July 2018. Between the cut-off date and the issue date some of the loans will be collected and as a result the GBV will decrease because of interim collections. For example as per 30 September the GBV is estimated to be around EUR 480.7m and the realised interim collections between 31 July 2018 and 30 September 2018 are estimated to be around EUR 1.2m. All stratifications in this report are based on the pool balance as per the cut-off date

Figure 2 shows the main characteristics of the preliminary portfolio we have analysed:



Portuguese Non-Performing Loans ABS

## Figure 2: Key portfolio stratifications

Data summary as of pool cut-off date 31 July

Data summary as of pool cut-off date 31 July 2018	Scope-adjusted pool				
	All loans	Senior secured Ioans	Junior secured Ioans	Unsecured Ioans	
Number of loans	7,466	1,138	519	5,809	
Number of borrowers	2,455	,		- ,	
Gross book value (EUR m)	482,145,438	179,126,622	57,095,753	245,923,062	
% of gross book value (GBV)	100%	37%	12%	51%	
Weighted average seasoning (years)	3.6	3.8	3.9	3.4	
Sum of collateral appraisal values (EUR m)		136,436,158			
Borrower type (% of GBV)					
Corporate	82%	28.5%	6.9%	46.5%	
Individual	14%	6.7%	3.4%	3.7%	
ENI	4%	2.0%	1.5%	0.8%	
Primary legal procedure (% of GBV)					
Bankrupt borrower	62%	17.6%	7.1%	37.1%	
Non-bankrupt borrower	23%	11.3%	4.3%	7.9%	
Tax related	1%	0.6%	0.2%	0.2%	
Not started or unknown	14%	7.7%	0.2%	5.8%	
Stage of procedure (% of appraisal values)					
Initial		31.8%			
Intermediate		28.9%			
Sale/Distribution		39.4%			
Collateral location (% of appraisal values)					
Lisboa		34.2%			
Porto		22.9%			
Algarve		4.7%			
Islands		8.0%			
Other		30.2%			
Borrower concentration (% of GBV)					
Top 10	27.6%				
Top 100	64.3%				
Property type (% appraisal values)					
residential		58.5%			
Non-residential		41.5%			

Source: Transaction data tape dated 27/09/2018; lien defined as economical lien; calculations and/or assumptions by Scope Ratings

## 2. Macroeconomic environment

The portfolio recovery amount and timing expectations reflect our expectation of the Portuguese economy for the medium term to continue to grow faster than its long-term growth-potential.

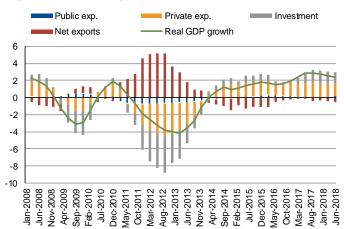
Following two consecutive shocks, namely the Great Financial Crisis and the euro-area crisis, during which Portugal lost market access and requested financial assistance in May 2011 amounting to EUR 78bn, the Portuguese economy has undergone a significant structural adjustment. Since Portugal's exit from the three-year economic adjustment programme in June 2014, its economy has grown on average by around 1.9%, in line with the euro-area average. This has been driven by a rebalancing of the economy towards the tradable sector, in particular tourism, strong private consumption due to the turnaround in the labour market, and a sustained rebound in investment. Portugal has also benefited from the ECB's accommodative monetary policy as well as favourable external conditions, particularly in the euro area. Finally, the stabilisation of the banking system is now also facilitating the efficient reallocation of resources, thus contributing to the investment recovery of the Portuguese economy.

Medium term growth above longterm potential

Portugal has benefited from the ECB's monetary policy

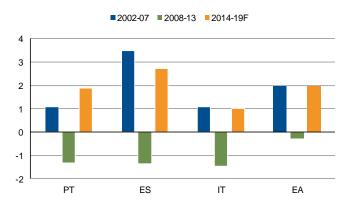


Portuguese Non-Performing Loans ABS



#### Figure 3: Real GDP growth, %





Sources: Haver, INE, EC and Scope Ratings

Scope expects fiscal policy support to remain mildly positive

Going forward Scope expects growth rates to slow from the 2.7% level recorded in 2017 to around 2% over the medium term – still above the long-term growth potential of the economy, which Scope estimates at around 1.5%. As the output gap closes in 2018-19, Scope expects fiscal policy support to remain mildly positive, and private consumption and investment to soften gradually. Continued household deleveraging, in light of low savings rates, is likely to somewhat dampen consumption despite labour market improvements and the minimal growth in real wages. By contrast, investment growth is expected to remain robust over the medium term due to the need to rebuild capital stock, the normalisation of EU fund allocation, and the maintenance of favourable financing conditions<sup>1</sup>. Finally, on the back of competitiveness gains, the contribution of net exports is set to remain mildly positive, given a structural adjustment in the Portuguese export sector with a broader diversification by sectors and markets.

Subdued productivity growth and demographic challenges

Low income, low-skilled jobs

While the short-to-medium-term growth outlook is robust, Portugal's long-term economic growth prospects face considerable challenges. The IMF and European Commission estimate potential growth at around 1.0% to 1.5%<sup>2</sup>, constrained by structural bottlenecks, including weak productivity growth, in part due to low investment levels, skill shortages and unfavourable labour force demographics. These constraints are reflected in Portugal having the third lowest potential GDP growth rate among euro-area members, just above that of Italy and Greece.

Scope identifies two macroeconomic vulnerabilities for Portugal: a comparatively large share of low-income, low-skilled jobs and the subdued investment levels. Scope notes positively that, based on INE data, Portugal has recovered around 520,000 of the 800,000 jobs lost during the crisis and reduced unemployment to 6.7% as of June 2018, the lowest level in 10 years and below the euro-area average of 8.4% (2018E). However, according to the EC, persons i) available to work but not seeking jobs, ii) seeking work but not immediately available, and iii) underemployed working part-time still constitute around 10% of the active population, pointing to further slack in the labour market.

In addition, aggregate wage growth remains subdued as most job openings were in sectors with low-skilled profiles and below-average salaries. In fact, 22.7% of workers were covered by the minimum wage at the end of the first semester of 2017 while the percentage of low-skilled workers (defined as individuals with a lower secondary education or below) remained high at 48% in 2016, down from 61% in 2011 but still

<sup>&</sup>lt;sup>1</sup> Banco de Portugal; Projections for the Portuguese Economy 2018-2020, March 2018

<sup>&</sup>lt;sup>2</sup> IMF Article IV and EC Country Report March 2018. https://ec.europa.eu/info/sites/info/files/2018-european-semester-country-report-portugal-en.pdf



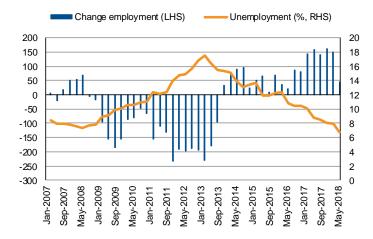
Portuguese Non-Performing Loans ABS

markedly above the EU average of 18%<sup>3</sup>. In Scope's opinion, while the gradual reduction in the share of jobs with lower education levels is positive<sup>4</sup>, along with a steady increase in the level of education<sup>5</sup>, the comparatively still large share of low-skilled and low-income jobs may weigh negatively on productivity and the tax base in the long run, as well as increase the risk of sustained income inequality among vulnerable group.

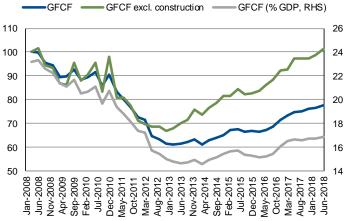
#### Low investment level constitutes a potential long-term productivity challenge

At the same time, Scope notes that despite a recent recovery in investments, the overall investment level of the economy, at 16.8% of GDP for 2018E, remains significantly below the euro-area average of 20.4% of GDP. This reflects the sharp decline in gross fixed capital, by around 6pp of GDP since 2008 – a substantial decline since the peak of 28% of GDP recorded in 2000. Conversely, Scope notes that investment, except for in construction, has recovered since Q2 2013 and is now almost back to the pre-crisis level. Finally, given the importance of EU funds for co-financing public investment projects, public investment is likely to gather pace in the coming years, somewhat closing the investment-stock gap compared to peer levels.

# Figure 5: Employment and unemployment, fourth quarter moving sum ('000s), % labour force



# Figure 6: Investment, gross fixed capital formation; 2008=100, % of GDP (RHS)



Sources: Haver and Scope Ratings

# Rating-conditional recovery assumptions

## 3. Portfolio analysis

Figure 7 compares Scope's lifetime net collections and recovery timing assumptions for the entire portfolio against those from the servicer's business plan. We have applied rating-conditional recovery rates (i.e., assumed expected recoveries decrease as the instrument's target rating increases). These assumptions result from the blending of secured and unsecured recovery expectations. We have applied different analytical frameworks to the secured and unsecured segments to derive recoveries.

For the portfolio analysis under a BBB- rating scenario, using our adjusted pool figures, we have assumed a net recovery rate of 19.3% over a weighted average life of 4 years (excluding collections already received). By portfolio segment, we have assumed net recovery rates of 34.1% and 2.9% for the secured and unsecured segments, respectively.

<sup>&</sup>lt;sup>3</sup> EC, Post-programme surveillance report, Autumn 2017

<sup>&</sup>lt;sup>4</sup> Based on INE data: The share of employment with a basic (or no) education level declined gradually from 57.8% in Q1 2011 to 42.9% in Q1 2018.

<sup>&</sup>lt;sup>5</sup> Portugal is part of a very small group of countries that have made steady, broad-based progress in the various rounds of the OECD PISA assessments.

https://voxeu.org/article/turnaround-portuguese-economy



stresses

Scope's assumptions reflect

recovery timing and amount

## Hefesto STC, S.A. – Guincho Finance

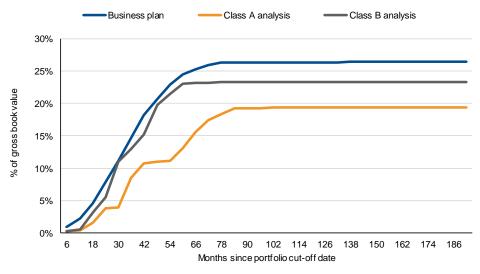
Portuguese Non-Performing Loans ABS

For the portfolio analysis under a B rating scenario, using our adjusted pool figures, we have assumed a net recovery rate of 23.4% over a weighted average life of 3.1 years. By portfolio segment, we have assumed net recovery rates of 41% and 3.6% for the secured and unsecured segments, respectively.

The assumptions applied to analyse the class A notes reflect a stress on cash-flow timing, driven, among other factors, by the rating conditional assumption for completing the judicial process and the expected time that the asset manager will need to sell the properties in the open market.

In addition, the assumptions applied to analyse the rated notes reflect a stress on the levels of cash flows, driven, among other factors by the rating conditional assumption for fire sale discounts.





Sources: Special servicers' aggregated business plans and Scope Ratings

## 3.1. Analysis of secured portfolio segment

Figure 8 shows our lifetime net-collections vectors for the secured portfolio segment compared to those from the servicers' business plans. Our analytical approach mainly consists 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. Recovery timing assumptions are mainly based on the efficiency of the assigned court (based on historical data on the length of the proceedings), the type of legal proceeding, and the stage of the proceeding. Our analysis also captures concentration risk, the extra time expected for the asset manager to sell the properties in the open market, the servicers' business plan, and available workout options.

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

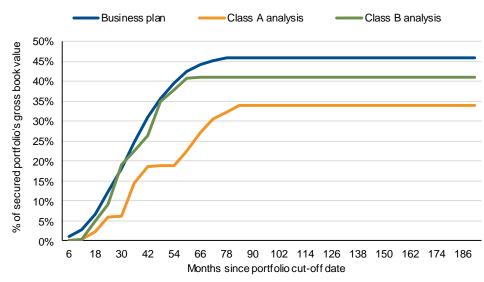


Positive credit given to the

quality of property appraisals

## Hefesto STC, S.A. – Guincho Finance

Portuguese Non-Performing Loans ABS



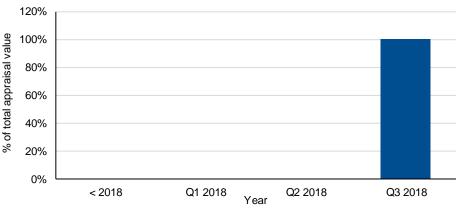
# Figure 8: Secured portfolio expected recoveries in business plan vs Scope assumptions<sup>6</sup>

Sources: Special servicer's business plan and Scope Ratings

## 3.1.1. Appraisal analysis

We have relied on line-by-line appraisals of the properties' market value. All valuations have been conducted in 2018 and more specifically during the third quarter.

## Figure 9: Collateral valuation dates



Source: Transaction data tape

We view positively that 64.5% of the portfolio's collateral appraisals are either drive-by valuations or full valuations. Desktop valuations comprise 35.5% of the appraisals, to which we have applied a 4.7% haircut in the class A analysis and 3.3% in the class B analysis. We have only considered the valuations made by the servicers.

<sup>&</sup>lt;sup>6</sup> Note that two of the servicers will service the secured loans, junior secured loans and small amounts of unsecured loans. Scope's analysis is based at the loan level; however, a loan is considered secured when it is secured by at least a first-lien mortgage or a junior lien mortgage not higher than a third lien. It is otherwise treated as unsecured.



Portuguese Non-Performing Loans ABS

# Figure 10: Portfolio appraisal types and Scope's transaction-specific valuation haircut assumptions

Valuation type	% of collateral value	Class A analysis haircut	Class B analysis haircut
Full	14.7	0.0%	0.0%
Drive-by	43.6	0.0%	0.0%
Desktop	35.5	4.7%	3.3%

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

## 3.1.2. Property market value assumptions

### Moderate market downturn risk

Figure 11 details our base case assumptions on property price changes over the transaction's lifetime, and the rating-conditional stresses applied for the analysis of the rated notes. These assumptions are i) specific to the transaction and region; ii) based on an analysis of historical property price volatility; and iii) based on fundamental metrics relating to property affordability, property profitability, private-sector indebtedness, the credit cycle, population dynamics and long-term macroeconomic performance.

# Figure 11: Collateral location and Scope's transaction-specific price change assumptions

Region	Lisboa	Porto	Algarve	Islands	Rest of provinces
Class A analysis	7.6	7.6	8.0	8.0	5.9
Class B analysis	-7.0	-7.0	-7.0	-7.0	-7.0
Portfolio distribution (%)	34%	23%	5%	8%	25%

# High NPL collateral liquidity and obsolescence risk

## 3.1.3. Collateral liquidity risk

Asset liquidity risk is captured through fire-sale haircuts applied to collateral valuations. Figure 12 below shows the rating-conditional haircuts applied for the analysis of the class A notes. These assumptions are based on historical distressed-sales data provided by the servicers and reflect our view that non-residential properties tend to be less liquid, resulting in higher distressed-sale discounts.

The fact that properties which are not sold in the first auction will be awarded to the asset manager and thereafter can be sold in the open market has also been considered when seizing for the fire-sale haircuts. In this way the properties can be extracted from the auction process where liquidity is lower than in the open market.

Figure 12: Scope's	transaction-specific	fire-sale discount	assumptions

Collateral type	% of collateral value	Class A analysis haircut	Class B analysis haircut	
Residential	58.5%	14.0%	10.0%	
Non-residential	41.5%	18.7%	13.3%	

## 3.1.4. Concentration haircuts

In the analysis of the class A notes, we have addressed borrower concentration risk by applying a 10% rating-conditional recovery haircut to the 10 largest borrowers by gross book value. This assumption has an important impact, given that the largest 10 borrowers account for as much as 27.6% of the portfolio's gross book value.

High borrower concentration impacts recoveries negatively



Portuguese Non-Performing Loans ABS

Scope addresses potential residual claims after security enforcement

No credit to residual claims from corporate borrowers

Partial credit to residual claims from individuals

Duration of judicial process and REO add-on

3.1.5. Residual claims after security enforcement

A secured creditor may initiate enforcement actions against a debtor despite the closure of an enforcement action concerning a mortgaged property. Secured creditors generally rank pari-passu with unsecured creditors for amounts that have not been satisfied with the security's enforcement.

For corporate loans, we have given no credit to potential further recoveries on residual claims after the security is enforced. This is due to three practical limitations: i) unsecured recoveries tend to involve either no recovery or full recovery, meaning if secured creditors are not fully satisfied after enforcement, unsecured creditors are likely to recover zero; ii) special servicers are less incentivised to pursue alternative enforcement actions as foreclosures are more economical; and iii) receivers can decide to close bankruptcy proceedings after a prudential amount of time, setting a time limit for obtaining further recoveries.

We have given credit to residual claims on 80% of loans to individuals. If the borrower is an individual, the elapsed time after a default might have a positive impact as he might find new sources of income over time and become solvent again.

## 3.1.6. Tribunal efficiency

We have applied line-by-line time-to-recovery assumptions that consider the type of legal proceeding (i.e., bankruptcy, tax proceeding or non-bankruptcy), and the current stage of the proceeding.

The total length of the recovery processes consists of two different steps: the judicial process and the time it takes for the asset manager to sell the awarded property in the open market (REO add-on).

The assumption for the judicial part of the process is based on public data regarding the average time for a legal recovery procedure together with the estimates for different types of procedures received by the servicers. Based on the data received bankruptcy and non-bankruptcy procedures are estimated to have a similar duration while tax proceedings are assumed to be significantly faster. We have not differentiated the estimated time for the judicial process between courts as the data shows only a limited variability between courts.

It is further assumed that the properties will not be sold in the first auction but instead awarded to the asset manager. We have therefore assumed that it will take 18 months for the asset manager to sell the property on the open market (REO add-on).

The total length between the start of the recovery process and sale of the property is therefore 63 months for bankruptcies and non-bankruptcies and 45 months for a tax process in the BBB- scenario, while it is estimated to take respectively 42 months and 30 months in the B scenario.

# Figure 13: Duration of different processes and steps in the recovery process in months (Scope's assumptions)

Scenario	Bankruptcy proceedings	Non-bankruptcy proceedings	Tax proceedings	REO add-on
BBB-	45	45	27	18
В	24	24	12	18

## 3.2. Analysis of unsecured portfolio segment

Figure 14 shows our lifetime net-collections vectors for the unsecured portfolio segment compared to those from the servicers' business plans.

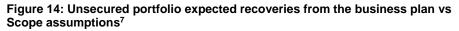
Unsecured portfolio analysis is based on statistical data

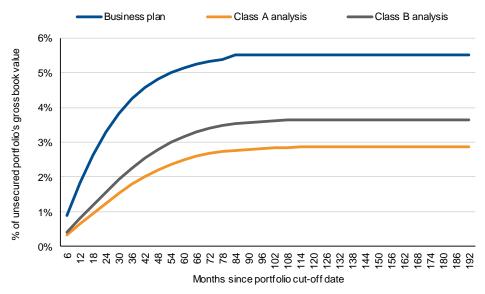


Portuguese Non-Performing Loans ABS

Our base case recovery amount and timing assumptions are based on an analysis of vintage recovery data from the servicers. For the analysis of the class A and class B notes, we have applied rating-conditional recovery rate haircuts of 16% and 0%, respectively. These stresses are consistent with the granular approach prescribed by Scope's Consumer ABS Rating Methodology.

The assumptions are calibrated to reflect that unsecured borrowers in the portfolio are classified as defaulted for an average of 3.4 years as of the cut-off date. As further described in Scope's NPL ABS Rating Methodology the recoveries for unsecured loans tend to be lower the longer time has passed since the loan was classified as defaulted.





Sources: Special servicers' business plans and Scope Ratings

## 4. Portfolio characteristics

Further detail on key portfolio characteristics as of 31 July 2018 is provided below. Percentage figures refer to gross book value, unless otherwise stated.

#### 4.1. Eligible loans

The representations and warranties on receivables provided by the originator are weaker than those of other non-performing loan transaction that we have rated. The criteria for inclusion in the securitisation portfolio are as follows:

- · Financings are denominated in euros.
- Financing agreements are governed by Portuguese law.
- 99% of the borrowers are as of the selection date entities with a registered office in Portugal.
- Financings secured by mortgages are backed by real estate assets located in Portugal.
- All loans have been entirely issued without any right to further advances or additional disbursements.
- No loan is subject to any set-off as per the cut-off date and after.

Limited representations and warranties

<sup>&</sup>lt;sup>7</sup> Please note that the servicer's business is the one from Altamira which consists of only unsecured loans. The other two business plans also contain small amounts of unsecured exposures. Our analysis has assumed that liens higher than third to be unsecured.



Portuguese Non-Performing Loans ABS

The following standard representations and warranties have not be included:

- That the borrowers are not employees, managers or directors of the originator.
- There is no representation limiting the domicile of the individual borrowers to Portugal. We have received information regarding the individual borrowers domiciled abroad.

The representations and warranties are limited in time and in order to get an indemnification the issuer must make a claim within 24 months. There is no limitation on the amount that the issuer can claim.

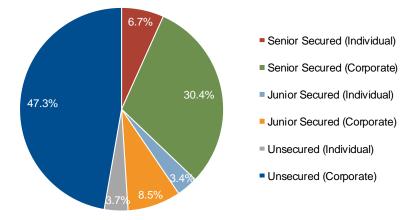
## 4.2. Detailed stratifications

### 4.2.1. Borrower type

Corporates and individuals represent 86% (including borrowers classified as ENI) and 14% of the pool, respectively. The low share of secured individual borrowers (6.7%) is a negative feature, mainly due to the low probability of achieving recoveries related to residual claims from corporates after security enforcement (see previous section).

The relatively low amount of first-lien secured loans (37%) is negative. The fact that the data tape contains detailed information regarding the senior liens have made it possible to also consider some junior-liens as secured. We have treated junior-lien secured loans as secured, deducting the amount of the senior liens from the proceeds coming from the property sale, for second and third liens, while we have treated higher junior liens as unsecured claims.

## Figure 15: Borrower and loan type



Sources: Transaction data tape; calculations by Scope Ratings

#### 4.2.2. Geographical distribution

The borrowers and the loan collateral are relatively well distributed geographically. Geographic concentration risks are sized for in our analysis via the market-value-decline assumptions, as described above.

Share of secured corporate borrowers is credit-negative

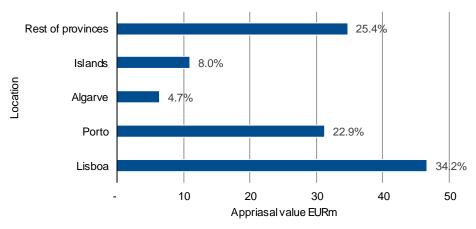
Low share of first-lien secured loans is credit-negative

Geographic diversification is credit-positive



Portuguese Non-Performing Loans ABS

## Figure 16: Collateral location

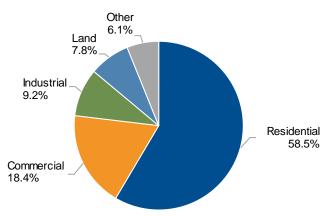


Sources: Transaction data tape; calculations by Scope Ratings

#### 4.2.3. Collateral type

The collateral is composed of residential (58.5%), commercial (18.4%), industrial (9.2%), land (7.8%), and other non-residential (6.1%) assets. The relatively large share of residential properties is positive for the transaction as such assets are more liquid, reflected in the lower fire-sale discount assumptions in our analysis (see Figure 12).

#### Figure 17: Distribution by type of collateral



Sources: Transaction data tape; calculations by Scope Ratings

#### 4.2.4. Collateral valuations and Scope's specific recovery rate assumptions

For secured loans our rating conditional stressed leads to a weighted average gross recovery rate of i) 53.4% under the class A rating-conditional stress; and ii) 67.7% under the class B rating-conditional stress.

All else equal (e.g., for two portfolios with equivalent loan-to-value ratios on an aggregated basis), the benefit of collateral is reduced if its value is skewed towards small 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.

Recovery rate assumptions reflect portfolio's LTV

Lower liquidity stresses applied

to residential properties

reflect portfolio's LTV distribution



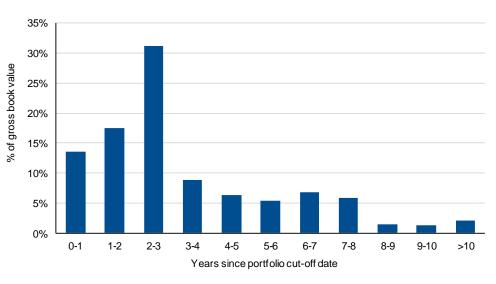
Portuguese Non-Performing Loans ABS

Ageing of unsecured portfolio reduces expected recoveries

#### 4.2.5. Loan seasoning

The weighted average time since default to the 31 July 2018 cut-off is around 3.4 years for unsecured exposures. The pool's ageing reduces the expected recoverable amount of unsecured loans significantly, since most recoveries are front-loaded in the first years after a default, according to historical data from different jurisdictions.

Figure 18: Unsecured portfolio seasoning distribution as of cut-off date



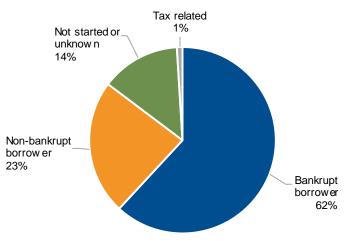
Sources: Transaction data tape; calculations by Scope Ratings

#### 4.2.6. Borrower status

Figure 19 below shows the main legal proceedings for each borrower (one borrower can have several), as we have assumed based on the transaction's data tape. About 14% of the loans have not started any process or the process is unknown.

Relative to initiated judicial proceedings, non-started processes require more work initially by the special servicer in order to classify and initiate the correct process. Generally bankruptcy processes are generally more complex, and costly, but in Portugal the data received indicates that bankruptcy processes a not generally more lengthy than nonbankruptcy process.

#### Figure 19: Borrower status assumptions



Sources: Transaction data tape; calculations by Scope Ratings

Low proportion of non-started processes is credit-positive



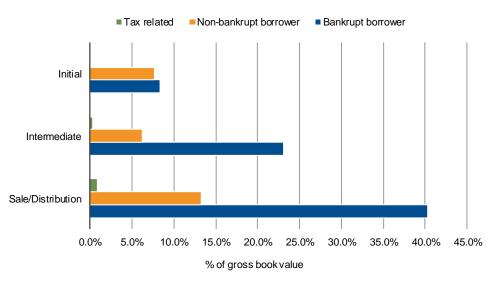
Portuguese Non-Performing Loans ABS

Proceedings in advanced judicial stage shortens recovery timing assumptions

#### 4.2.7. Recovery stage of secured exposures

An above-average portion of the secured loans are in the sale/distribution judicial stage compared to similar transactions we have rated. Figure 20 below shows the stage of legal proceedings for the three types of judicial processes in relation to secured loans.

#### Figure 20: Secured recovery stage by borrower status



Sources: Transaction data tape; calculations by Scope Ratings

## 5. Key structural features

#### 5.1. Combined priority of payments

The issuer's available funds (i.e., collection amounts received from the portfolio, the liquidity reserve, and payments received under the interest rate cap agreement) will be used in the following simplified order of priority, and only to the extent that the more senior amounts have been paid in full:

- 1. Servicer fees and other issuer counterparty fees, taxes and transaction expenses
- 2. Interest on class R
- 3. Interest on class A notes
- 4. Liquidity reserve replenishment to its target
- 5. Principal on class R notes, with the funds released from the amortising liquidity reserve
- 6. Interest on class B notes provided no subordination trigger is breached
- 7. Use all remaining funds to redeem the Class A notes
- 8. Upon a breach of a subordination trigger, the interest on class B
- 9. Pro rata and pari passu principal on class B and the mezzanine servicing fees, if any
- 10. Interest on class J
- 11. Pro rata and pari passu principal on class J and junior servicing fees
- 12. Additional return on class J

# Full class B interest deferral is Class B subordination triggers may be relatively ineffective at protecting senior likely noteholders as the subordination event is reversible. If at any point during the transaction's life both triggers are jointly cured then all class B interest amounts due and unpaid at the preceding payment dates will be paid senior to class A principal.



Portuguese Non-Performing Loans ABS

The subordination of the class B interest will be triggered if i) the cumulative collection ratio<sup>8</sup> falls below 90%; ii) the present value cumulative profitability ratio<sup>9</sup> falls below 90%; or iii) the interest amount paid to class A notes is lower than the due and payable interest amount.

The shape and absolute level of the cash flow vector used for the class A analysis is significantly slower and lower than the business plans and therefore the probability that the class B subordination will be efficient in that scenario is quite high.

Non-payment of timely interest on the senior notes among other customary events such as issuer insolvency, breach of other issuer obligations, it becomes unlawful for the issuer to comply with its obligations, would trigger a post enforcement waterfall which would accelerate the repayment of class A through the full subordination of class B payments.

Non-payment of any principal or interest at the final legal maturity will also trigger a post enforcement waterfall at that date.

## 5.2. Asset manager

GAM – Gncho Asset Management S.A has been appointed as asset manager at closing. All properties that are not sold in the first auction will be awarded to the asset manager, who will sell the properties in the open market. This is beneficial for the transaction as properties can be extracted from the auction process, which is generally less liquid than the open market. The fire-sale discounts we have applied, see above, considers this positive feature. It should though be noted that the asset manager does not insulate the issuer from the price risk stemming from the sale of the property as the asset manager only transfer the proceeds recovered to the issuer without any significant add on or deduction.

On the other hand, the time it takes for the asset manager to be awarded the property, prepare it for sale and actually sell it in the open market adds some extra time compared to a sale in the auction. We have considered this additional time in the REO add-on.

#### 5.2.1. Asset manager tax implications

The asset manager has been set up as a limited liability company with the intention to buy and sell real estate properties and it can therefore benefit from a favourable tax regime meaning that it is exempt from paying a municipal transaction tax (which can range up to 6.5%). The requirement is that it resells the property to a third party within 3 years after the acquisition otherwise it will have to pay the municipal transaction tax.

### 5.2.2. Asset manager, bankruptcy remoteness

The asset manager does not benefit from the statutory segregation and the privileged credit entitlement in the Portuguese securitisation law. Instead several structural and contractual mechanisms mitigate the risk of third party claims being made against the asset manager and its assets.

- 1. The asset manager activities are limited to the purchase and sale of properties for the issuer and it cannot carry out any other activity.
- 2. The asset manager cannot let create any charge, lien or other type of security in favour of a third party over any of its assets, receivables etc.

Non-timely class A interest payment would trigger accelerated waterfall

Asset manager sell properties in the open market

Special tax regime applicable to the asset manager

<sup>&</sup>lt;sup>8</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>&</sup>lt;sup>9</sup> 'Present value cumulative profitability ratio' is defined as the ratio between i) the sum of the present value (calculated using an annual rate of 3.5%) of the net collections of all receivables relating to closed positions; and ii) the sum of the target price (the present value of the net collections according to each servicer's business plan) of all receivables relating to closed positions. Each servicer classifies a position as closed in accordance with the servicing agreements.



Portuguese Non-Performing Loans ABS

- 3. The asset manager cannot issue any bonds, take out any new loans or incur any indebtedness.
- 4. The proceeds from property sales are transferred to the issuer accounts on a daily basis.

The asset manager is a fully owned subsidiary of Guincho Asset Management Holdings D.A.C, an Irish orphan bankruptcy remote designated activity company. The owner has created a financial pledge over the shares in favour of the issuer.

## 5.3. Servicing fee structure and alignment of interests

## 5.3.1. Servicing fees

The servicing fee structure links the portfolio's performance with the level of fees received by the servicers, which mitigates potential conflicts of interest between the servicer and noteholders.

The servicers for the secured loans are entitled to a performance fee equal to 5% and even for the unsecured positions linked to the secured ones the performance fee is 5% of the collections. The unsecured servicer is entitled to a performance fee equal to 14% of the collections.

Both for the secured and unsecured servicers a haircut of 20% will be applied to the performance fees (in this way becoming 4% for the secured and 11.2% for the unsecured) in case the present value of the aggregated net collections is below the present value of the aggregated expected collections in each business plan.

In addition, in case of underperformance in terms of present value of the aggregated collections compared to the present value of the aggregated net expected collections in each business plan, a portion of the fees will be paid in a mezzanine and a junior position in the priority of payments. The amount of fees paid in the mezzanine and junior position in the priority of payments depends on the level of underperformance compared to the business plan.

Both these measures incentivise the servicers to maximise recoveries and comply with the initial business plan. Given that the triggers are linked to the aggregated present value of net collections and not only the closed positions the alignment of interest in this transaction is stronger than in other NPL transactions that we have rated.

#### 5.3.2. Servicer monitoring

An overview of the servicer's activities and calculations, prepared by the monitoring agent (KPMG & Associados - SROC, S.A.), mitigates operational risks and moral hazard that could negatively impact noteholder interests. This risk is further mitigated by a discretionary servicer termination event should the servicer underperform.

Under the servicing agreements, the servicers are responsible for the servicing, administration, and collection of receivables as well as the management of legal proceedings. The monitoring 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 represents the interests of both junior and mezzanine noteholders. The committee can authorise the revocation and replacement of the servicer upon a servicer termination event, subject to the approval of the noteholders' representative. The monitoring agent can also on behalf of the committee authorise the sale of the receivables, the closure of debt positions, and the payment of additional costs and expenses related to recovery activities.

Strong alignment of servicer and noteholder interests

Monitoring function protects noteholders' interests



Portuguese Non-Performing Loans ABS

Common representative assists the issuer in finding successor servicers, if necessary

### 5.3.3. Servicer termination events

In case of a servicer termination event the common representative shall assist the issuer in finding a suitable successor servicer. The successor servicer will be appointed by the committee of junior and mezzanine noteholders and notified to all relevant parties by the monitoring agent.

A servicer termination event includes inter alia i) insolvency; ii) failure to pay due and available amounts to the issuer within five business days; iii) unremedied breach of obligations; iv) unremedied breach of representation and warranties; and v) loss of legal eligibility to perform obligations under the servicing agreement. The servicer can also be substituted owing to its consistent underperformance beginning one year after the closing of the transaction.

## 5.4. Liquidity protection

A liquidity reserve will be funded at closing through the issuance of the class R notes for an amount equal to EUR 3.1m (approximately 3.7% of the class A notes).

The amortising liquidity reserve will stay in place until the class A notes are redeemed or the transaction reaches legal maturity. The target liquidity reserve amount at each payment date will be equal to 3.0% of the outstanding balance of class A notes.

The liquidity 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 liquidity protection.

The three expense accounts which have an aggregate target amount of EUR 1.25m at closing can be used to cover legal and other expenses and thereby give a certain liquidity protection to the structure.

## 5.5. Interest rate hedge

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 2.0% fixed margin on the class A notes and six-month Euribor plus an 6.0% fixed margin on the class B notes.

An interest rate cap, with a progressively increasing strike (cap rate) partially mitigates the risk of increased liabilities on the class A notes due to a rise in Euribor. The swap counterparty is Banco Santander S.A. (AA-/S-1+),

The notional balance of the swap is significantly higher than our expected outstanding amount of the class A notes when applying the class A analysis stress, and therefore it mitigates the interest rate risk well. A delay in recoveries beyond our stressed recovery timing vector could create an interest rate risk exposure, as it could open up a gap between the transaction's interest rate cap notional amount and the outstanding principal of the class A notes, as shown in Figure 21 and Figure 22. For the analysis of the class A notes, we have stressed the Euribor forward curve, as shown in Figure 21.

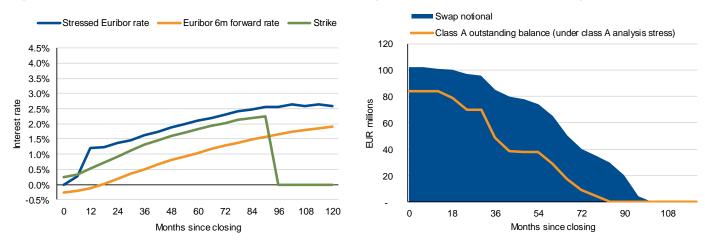
Liquidity reserve provides liquidity to senior noteholders

The interest rate cap mitigates interest rate risk well when the class A analysis stress is applied

Portuguese Non-Performing Loans ABS

#### Figure 21: Interest rate cap class A

SCOPE



#### Figure 22: Cap notional vs outstanding class A notes

Sources: Transaction documents, Bloomberg and Scope Ratings

## 6. Cash flow analysis and rating stability

Scope's cash flow analysis considers the structural features of the transaction

The ratings are a forwardlooking opinion on relative credit risks We have 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 and other costs based on the servicer's business plan, and the contractually agreed servicing fees. We have considered the reference rate payable on the notes based on the six-month Euribor forward curve, considering the progressive cap rates of the swaps.

The BBB-<sub>SF</sub> and B-<sub>SF</sub> ratings assigned to the class A and class B notes, respectively, constitute a forward-looking opinion on relative credit risks. The ratings reflect the expected loss associated with payments contractually promised by an instrument on a payment date or by its legal maturity. We calculate an instrument's expected loss over an expected risk horizon, with the result benchmarked against our idealised expected loss table reported in the General Structured Finance Rating Methodology.

We 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.

For class A, the following shows how the results change compared to the assigned credit rating in the event of:

- a decrease in secured and unsecured recovery rates by 10%, 2 notches.
- an increase in the recovery lag by one year, 1 notch.

For class B, the following shows how the results change compared to the assigned credit rating in the event of:

- a decrease in secured and unsecured recovery rates by 10%, 1 notch.
- an increase in the recovery lag by one year, 0 notches.

## 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 Portugal's hypothetical exit from the Eurozone are not material for the notes' rating.

No mechanistic cap



Portuguese Non-Performing Loans ABS

For more insight into Scope's fundamental analysis on the Portuguese economy, refer to the rating report on Portugal, dated 8 June 2018.

## 8. Counterparty risk

The transaction is mainly exposed to counterparty risk from the following counterparties: i) Whitestar Asset Solutions, S.A. "Whitestar", HG PT, Unipessoal, Lda. "Hipoges", and Proteus Asset Management, Unipessoal, Lda. "Altamira"; the servicers; ii) GAM – Gncho Asset Management S.A., the asset manager; iii) Guincho Asset Management Holdings D.A.C , the asset manager's shareholder; iv) Citibank, N.A., London Branch , the transaction manager, payment account bank, cap collateral account bank and principal paying agent; v) Citibank Europe plc, Portuguese paying agent; vi) Banco Santander Totta S.A., the account bank and originator; vii) KPMG & Associados - SROC, S.A, the monitoring agent; viii) Banco Santander S.A., the cap counterparty; ix) Citicorp Trustee Company Limited, the common representative. In our view, none of these exposures limits the maximum ratings achievable by the transaction.

Our analysis has incorporated the transaction's counterparty replacement triggers and has relied on public ratings assigned to Banco Santander Totta S.A. and Citibank N.A., London Branch.

The issuer will hold the majority of its accounts with Banco Santander Totta S.A. and the cap collateral account and payment account with Citibank N.A., London Branch. There are rating triggers in place for the replacement of the account bank, cap collateral account bank and payment account bank.

## 8.1. Servicer disruption risk

A servicer disruption event may have a negative impact on the transaction's performance. The transaction incorporates servicer-monitoring, and replacement arrangements that mitigate operational disruption (see section 5.2).

In case the servicer reports are not available at the calculation date the transaction manager will base its calculations on estimates and only pay items until interest on the class A notes, excluding the servicing fees. The transaction manager will use the amounts standing at the liquidity reserve and any other amounts available in the accounts to make these payments.

## 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 servicers receive payments from a debtor, the servicers would transfer the amounts on the same day or at latest within the next business day.

## 8.3. Claw-back risk

The originator will provide a solvency certificate on the issue date. This mitigates clawback risk, as the issuer should be able to prove it was unaware of the issuer's insolvency as of the transfer date.

## 8.4. Enforcement of representations and warranties

The issuer will rely on the representations and warranties, limited by time, provided by the originator in the transfer agreement. If a breach of a representation and/or warranty materially and adversely affects a loan's value, the originator may be obliged to indemnify the issuer for damages within 10 business days of the notification. However, it will only be paid if claims are filed within two years of the transfer date.

Counterparty risk does not limit the transaction's rating

Limited commingling risk

Limited claw-back risk

Representations and warranties limited by time



Portuguese Non-Performing Loans ABS

Transaction governed by Portuguese law

**Continuous rating monitoring** 

## 9. Legal structure

## 9.1. Legal framework

The transaction documents are governed by Portuguese law, whereas English law governs the interest cap agreement.

The transaction is fully governed by the terms in the documentation and any changes are subject to the risk-takers' consent.

## 9.2. Use of legal opinions

We 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

We will monitor this transaction based on performance reports as well as other public information. The ratings will be monitored continuously and reviewed at least once 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 the transaction we have applied our Non-Performing Loan ABS Rating Methodology, and Methodology for Counterparty Risk in Structured Finance, both available on www.scoperatings.com.



Portuguese Non-Performing Loans ABS

## Scope Ratings GmbH

## **Headquarters Berlin**

Lennéstraße 5 D-10785 Berlin Phone +49 30 27891 0

## London

Suite 301 2 Angel Square London EC1V 1NY

Phone +44 203-457 0 4444

## Oslo

Haakon VII's gate 6 N-0161 Oslo

Phone +47 21 62 31 42

info@scoperatings.com www.scoperatings.com

## Frankfurt am Main

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

Phone +49 69 66 77 389-0

## Madrid

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

Phone +34 914 186 973

## Paris

33 rue La Fayette F-75009 Paris

Phone +33 1 82885557

## Milan

Via Paleocapa 7 IT-20121 Milan

Phone +39 02 30315 814

## Disclaimer

© 2018 Scope SE & Co. KGaA and all its subsidiaries including Scope Ratings GmbH, Scope Analysis GmbH, Scope Investor Services GmbH and Scope Risk Solutions GmbH (collectively, Scope). All rights reserved. The information and data supporting Scope's ratings, rating reports, rating opinions and related research and credit opinions originate from sources Scope considers to be reliable and accurate. Scope does not, however, independently verify the reliability and accuracy of the information and data. Scope's ratings, rating reports, rating opinions, or related research and credit opinions are provided 'as is' without any representation or warranty of any kind. In no circumstance shall Scope or its directors, officers, employees and other representatives be liable to any party for any direct, indirect, incidental or other damages, expenses of any kind, or losses arising from any use of Scope's ratings, rating reports, rating opinions, related research or credit opinions. Ratings and other related credit opinions issued by Scope are, and have to be viewed by any party as, opinions on relative credit risk and not a statement of fact or recommendation to purchase, hold or sell securities. Past performance does not necessarily predict future results. Any report issued by Scope is not a prospectus or similar document related to a debt security or issuing entity. Scope issues credit ratings and related research and opinions with the understanding and expectation that parties using them will assess independently the suitability of each security for investment or transaction purposes. Scope's credit ratings address relative credit risk, they do not address other risks such as market, liquidity, legal, or volatility. The information and data included herein is protected by copyright and other laws. To reproduce, transmit, transfer, disseminate, translate, resell, or store for subsequent use for any such purpose the information and data contained herein, contact Scope Ratings GmbH at Lennéstraße 5 D-10785 Berlin.

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