

# Proteus RMBS Designated Activity Company



Insight beyond the rating.

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## Ratings and Issuer's Assets and Liabilities

Debt	Amount (EUR)	Size <sup>1</sup>	Initial Credit Enhancement <sup>2</sup>	Coupon	Step-Up Coupon <sup>4</sup>	Rating <sup>3</sup>	Rating Action
Class A (XS1908324228)	1,199,601,000	76.00%	24.0%	3m Euribor + 0.45%	3m Euribor + 0.90%	AAA(sf)	Provisional Rating – Finalised
Class B (XS1908325118)	86,812,000	5.50%	18.50%	3m Euribor + 0.90%	3m Euribor + 1.35%	AA (high)(sf)	Provisional Rating – Finalised
Class C (XS1908325464)	63,137,000	4.00%	14.50%	3m Euribor + 1.10%	3m Euribor + 1.65%	AA (low)(sf)	Provisional Rating – Finalised
Class D (XS1908325977)	47,353,000	3.00%	11.50%	3m Euribor + 1.75%	3m Euribor + 2.625%	A (sf)	Provisional Rating – Finalised
Class E (XS1908326272)	39,461,000	2.50%	9.00%	3m Euribor + 3.00%	3m Euribor + 4.50%	BBB (sf)	Provisional Rating – Finalised
Class F (XS1908326785)	139,908,000	8.93%	N/A	N/A	N/A	Not Rated	N/A
Class X Certificate (XS1909120278)	150,000	0.01%	N/A	Class X Payment	Class X Payment	Not Rated	N/A
Class Y (XS1908326868)	2,000,000	0.06%	N/A	Class Y Payment	Class Y Payment	Not Rated	N/A

Notes:

<sup>1</sup> The size of the notes is a percentage of the collateralised notes.

<sup>2</sup> Credit Enhancement is expressed as a percentage of the aggregate current balance of the portfolio balance and does not include the general reserve fund at closing.

<sup>3</sup> The ratings assigned to the Class A notes address the timely payment of interest and ultimate payment of principal by the legal final maturity date. The ratings assigned to the Class B, Class C, Class D and Class E notes address the ultimate payment of interest and principal by the legal final maturity date while they remain the junior notes and the timely payment of interest and ultimate payment of principal when they become the most senior class of notes outstanding.

<sup>4</sup> From the step-up date, the step-up coupon will be payable in respect of the Class A to E notes.

	Initial Amount (EUR)	Size
Portfolio Balance (30 September 2018)	1,578,422,000	100.00%
General Reserve	0	0.00%
Liquidity Reserve	3,946,055	0.25% <sup>5</sup>

<sup>5</sup> Size represented as a percentage of the aggregate current balance of the mortgage portfolio at closing.

DBRS Ratings Limited (DBRS) finalised the aforementioned ratings of the securitisation notes issued by Proteus RMBS Designated Activity Company (the Issuer or Proteus).

The Issuer is a bankruptcy-remote special-purpose vehicle (SPV) incorporated in the Republic of Ireland. The issued notes will be used to fund the purchase of Irish residential mortgage loans secured over properties located in Ireland. These mortgage loans have been originated by Danske Bank A/S (Danske or the Bank; rated "A", R-1 (low) with a Negative trend by DBRS).

The beneficial interest of the mortgage loans will be transferred to the Issuer while the legal title will remain with Pepper Asset Servicing (Pepper) as a servicer of the mortgage portfolio during the life of the transaction with Rockstead acting as the servicer facilitator. In DBRS's view, Pepper has appropriate servicing capabilities to monitor and manage the performance of its mortgage book and securitised mortgage portfolios. The appointment of Rockstead as servicer facilitator may, in DBRS's opinion, help mitigate a potential servicer termination and immediate interest shortfalls arising from operational issues. Moreover, the rated

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## Transaction Parties

Roles	Counterparty	Rating
<b>Issuer</b>	Proteus RMBS DAC	NA
<b>Vendor</b>	Danske Bank A/S	"A" Negative trend / R-1(low) Stable trend / COR: AA (low) Negative trend
<b>Seller</b>	Proteus Funding DAC	NA
<b>Servicer</b>	Pepper Finance Corporation (Ireland) DAC	NA
<b>Principal Paying Agent, Agent Bank and Account Agent</b>	Citibank N.A., London Branch	NA
<b>Account Bank</b>	Citibank Europe Public Limited Company	A(high) Positive trend / R-1 (middle) Stable trend
<b>Note Trustee and Security Trustee</b>	Citibank N.A., London Branch	NA
<b>Share Trustee</b>	MaplesFS Trustees Ireland Limited	
<b>Servicer Facilitator</b>	Rockstead Limited	NA
<b>Replacement Servicer Facilitator, Replacement Cash Manager Facilitator and Corporate Services Provider</b>	Maples Fiduciary Servicer (Ireland) Limited	NA
<b>Cash Manager</b>	Citibank N.A., London Branch	NA
<b>Retention Holder</b>	Goldman Sachs Lending Partners LLC	NA
<b>Legal Title Holder</b>	Pepper Finance Corporation (Ireland) DAC	NA
<b>Arranger</b>	Goldman Sachs International	NA
<b>Joint Lead Manager</b>	Goldman Sachs International and Goldman Sachs & Co. LLC, New York	NA

## Relevant Dates

<b>Portfolio Cut-Off Date</b>	30 September 2018
<b>Issue Date</b>	20 December 2018
<b>First Payment Date</b>	29 January 2019
<b>Payment Dates</b>	29th of January, April, July and October
<b>Payment Frequency</b>	Quarterly
<b>Step-Up Date:</b>	29 January 2023
<b>Optional Redemption Date</b>	The first interest payment date (IPD) on or following the earlier of: (1) the Step-Up Date; (2) the date on which the current balance of the portfolio becomes equal to or less than EUR 350,000,000 and (3) the Tax Change Redemption Date.
<b>Final Maturity Date</b>	IPD falling in October 2054

notes will have necessary liquidity support from the liquidity reserve fund and the general reserve fund on account of any temporary servicing disruption.

The transaction's capital structure provides 24.0% credit enhancement to the Class A notes, through subordination of the Class B notes (5.50% in size of the total issuance), the Class C notes (4.00% in size of the total issuance), the Class D notes (3.00% in size of the total issuance), the Class E notes (2.50% of the total issuance), the Class F notes (8.86% of the total issuance), the Class X certificate (0.01% of the total issuance) and the Class Y notes (0.13% of the total issuance). The Class B notes have 18.50% of credit enhancement, Class C 14.50%, Class D 11.50% and Class E 9.00%. DBRS does not rate the Class F notes.

The liquidity support in the transaction is provided by the general reserve fund, which can be used to pay senior costs and interest on the rated notes. The liquidity for the rated notes will be further supported by the use of principal receipts from the mortgage loans to cure revenue shortfall when the rated notes are the most senior. The Class A notes will be also supported by the liquidity reserve fund. The size of the liquidity reserve fund will change during the life of the transaction depending on certain conditions defined in detail below. Terms and conditions on the notes allow interest payments on the subordinated notes of Class B, Class C, Class D, Class E and Class F to be deferred if the funds available are insufficient, where Class B, Class C, Class D, Class E and Class F are not the most senior outstanding class of notes.

### Portfolio Summary (30 September 2018)

<b>Total Current Balance</b>	EUR 1,583,340,234	<b>Asset Class</b>	RMBS
<b>Total Current Balance ex PDL and Redeemed Loans <sup>1</sup></b>	EUR 1,578,422,092	<b>Governing Jurisdiction</b>	Republic of Ireland
<b>Number of Loans</b>	11,958	<b>Sovereign Rating</b>	A(high)/R-1(middle)/Stable trend
<b>Weighted-Average Coupon (WAC)</b>	1.42%		
<b>Indexed WACLTV <sup>2</sup></b>	64.84%		
<b>Weighted-Average Seasoning (WAS) (Years)</b>	10.9		

<sup>1</sup> From the original closing date and up to (and excluding) the cut-off date, approximately EUR 4.5 million of the portfolio's current balance has been debited to the Principal Deficiency Ledger (PDL) and the amount standing to the PDL has been applied as available revenue receipts in accordance with the relevant priorities of payment on 31 October 2018. All the numbers related to the portfolio in this rating report will exclude the PDL and the redeemed loans.

<sup>2</sup> 50% credit for increase in house price index since the original valuation date.

## Rating Considerations

### Notable Features

- The rating assigned to the Class A notes addresses the timely payment of interest and ultimate payment of principal. The ratings assigned to the Class B, Class C, Class D and Class E notes address ultimate payment of interest principal.
- The notes will always be paid down sequentially which will allow credit enhancement for the notes to build up over time as the notes amortise.
- The transaction benefits from a general reserve fund that is available to support the Class A to Class E notes. The general reserve fund will be funded at closing from available revenue funds to 0.25% of the initial balance of the mortgage loans as at 30 September 2018. The general reserve fund will be non-amortising until October 2020 and thereafter will amortise to the higher of (1) 0.25% of the outstanding balance of the mortgage loan and (2) 0.10% of the initial balance of the mortgage loans as at 30 September 2018; the amortisation is not subject to performance conditions. The transaction also benefits from a liquidity reserve fund that provides liquidity support to cure revenue shortfalls on senior fees, the Class X certificate and interest on the Class A notes. The liquidity reserve fund will be funded from principal receipts to its target and can be used prior to any principal receipts received during the period. In addition, any use of principal to cure revenue shortfalls or to fund the liquidity reserve fund will be debited to the principal deficiency ledgers in reverse sequential order. The mortgage sale agreement included representations and warranties and remedial action following a breach of asset warranty weaker than the market standard observed in other Irish residential mortgage-backed securities (RMBS) transactions. Certain asset warranties are qualified by reference to the relevant seller's awareness, where the sellers have no direct knowledge of certain matters which could give rise to a breach of warranties (e.g., in relation to origination). The asset warranties are limited: the indemnification payments are floored at a claim value of EUR 50,000, which is atypical. In addition, liabilities arising from a breach of warranty is subject to a minimum aggregate claim value of EUR 3.5 million. There is also a time limitation in the underlying sale agreement which will be ending soon (in approximately two months) which limits representation and warranties recourse. Moreover, there is no warranty given on changes to laws and regulations that could affect the above-mentioned minimum claim provisions.

- Contrary to the most recent Irish RMBS transactions that DBRS has analysed recently, the provisioning mechanism in the transaction is not linked to the arrears status of a loan. In Proteus RMBS DAC, the provisioning mechanism is based on losses. DBRS considers that provisioning based on losses is less positive for the transaction compared with provisioning based on arrears since excess spread will not be trapped as earlier for loans that may ultimately end up in litigation for recovery.

### Strengths

- **Granular Portfolio:** The portfolio is very granular. The largest borrower accounts for 0.55% of the portfolio's total loan balance. The top five borrowers account for 1.68% of the portfolio's loan balance and the top ten borrowers account for 2.54%.
- **Lower Loan-to-Value Ratio:** The loan-to-value (LTV) profile is relatively low for Irish mortgage portfolios. The indexed weighted-average current LTV (WACLTV) is 64.8%, based on 50% indexation credit. The indexed WACLTV is 63.9% when full indexation credit is accounted for. 14.4% of the portfolio's balance represent loans in negative equity.
- **Income Verification:** 100% of the loans have been granted on a full income verification basis.
- **Seasoned Portfolio:** The mortgage portfolio is 10.9 years seasoned on a weighted-average (WA) basis. 77.9% of the loans have been originated between 2006 and 2008.

### Challenges and Mitigating Factors

- **Asset Warranties:** DBRS considers the representations and warranties and the remedial action following a breach of asset warranty to be weaker than the market standard observed in other Irish residential mortgage-backed securities (RMBS) transactions. Certain asset warranties are qualified by reference to the relevant seller's awareness, where the sellers have no direct knowledge of certain matters which could give rise to a breach of warranties (e.g., in relation to origination). The asset warranties are limited: the indemnification payments are floored at a claim value of EUR 50,000, which is atypical. In addition, liabilities arising from a breach of warranty is subject to a minimum aggregate claim value of EUR 3.5 million. There is also a time limitation in the underlying sale agreement which will be ending soon (in about two months) which limits representation and warranties recourse. Moreover, there is no warranty given on changes to laws and regulations that could affect the above-mentioned minimum claim provisions.

**Mitigant:** The portfolio is significantly seasoned with a WA seasoning of 10.9 years and all the loans are serviced by an experienced servicer. DBRS expects that most potential cases of a breach of any of the representations or warranties would already have materialised. Moreover, a satisfactory level of asset due diligence has been conducted by the arrangers on the entire portfolio with no exceptions found and representations and warranties around current regulatory issues have been given.

- **Buy-to-Let (BTL) loans:** 25.7% of the mortgage portfolio comprises full recourse BTL loans. During periods of financial stress, DBRS believes that a borrower would choose to meet repayment obligations of the owner-occupied loan over the BTL loan, if the rental income is insufficient to cover the loan repayment.

**Mitigant:** DBRS has applied a portfolio default (PD) adjustment for BTL loans in the mortgage portfolio in line with its *Master European Residential Mortgage-Backed Securities Rating Methodology and Jurisdictional Addenda* methodology.

- **Repayment Method:** 33.0% of the mortgage portfolio repays on an interest only (IO) basis with no schedule amortisation of principal and 1.6% of the mortgage portfolio repays on part & part basis. The remaining 65.3% are amortising loans on a capital plus interest basis. Consequently, the mortgage portfolio is exposed to a high refinancing risk for about two thirds of the portfolio, once the IO loans reach their maturity date.

**Mitigant:** DBRS has applied a portfolio default (PD) adjustment for all the IO and Part & Part loans in the mortgage portfolio in line with its *Master European Residential Mortgage-Backed Securities Rating Methodology and Jurisdictional Addenda* methodology.

- **Borrowers' Employment Status:** Self-employed borrowers make up 21.4% of the mortgage portfolio. 1.3% are classified as unemployed and 74% are classified as other (including pensioners and temporal workers). The repayments on such loans may be adversely affected adversely as the income for self-employed borrowers is more vulnerable to variation compared to with employed borrowers.

**Mitigant:** Based on historical performance data, DBRS has assessed the ability of such borrowers to maintain payments due on the mortgage loans. To account for the risk of income variation, DBRS has applied a default probability adjustment to loans granted to self-employed borrowers in line with its *Master European Residential Mortgage-Backed Securities Rating Methodology and Jurisdictional Addenda* methodology.

- **Geographic Concentration:** 52.8% of the pool is concentrated outside Dublin, with 47.2% concentrated in the Dublin area.  
**Mitigant:** The peak-to-trough house price decline in Dublin at 59.6% was higher compared with the areas outside Dublin at 56.5%. However, recovery has been slower outside Dublin, where prices have recovered by 63% compared with a recovery of 88% in Dublin. DBRS assessed potential losses using its market value decline assumptions for Dublin and areas outside Dublin, and applied additional PD penalties for specific areas outside of Dublin in line with its *Master European Residential Mortgage-Backed Securities Rating Methodology and Jurisdictional Addenda*.
- **Restructured Loans:** Currently, 2.0% of the portfolio had some form of forbearance or restructure in place. The type of restructure applied is entirely dependent upon the Servicer's detailed assessment of the borrower's financial status. The different types of forbearance can be a combination of arrears capitalisation, term extension and interest rate reduction. These loans were largely originated between 2006 and 2008.  
**Mitigant:** Of the 2.0% of the loans that have been provided some form of forbearance, only 0.1% are currently in arrears for more than three months and none are currently under a moratorium. This indicates a good degree of cure for restructured loans, which is driven by the low interest rate environment as well as improving economic prospects for the Irish economy and mortgage borrowers.
- **Unhedged Interest Risk and Basis Risk:** The rated notes pay an interest linked to the three-month Euribor rate and, in comparison, the loans in the mortgage portfolio pay interest linked to the European Central Bank (ECB) rate (79.9% of the mortgage portfolio) and the Servicer's standard variable rate (SVR) (19.0% of the mortgage portfolio) and the rest pay either a fixed rate of interest (0.1% of the mortgage portfolio) or other rates of interest (1.0% of the mortgage portfolio). This gives rise to both interest and basis risk that is not hedged in the transaction.  
**Mitigant:** To partially mitigate this risk, the Issuer, the legal title holder and the Servicer have further undertaken to only increase the applicable interest rate of the SVR loans by the net movement above zero in the ECB rate and to only decrease the applicable interest rate of the SVR loans if there is a decrease in the ECB rate. In addition, under the servicing agreement, the Servicer will undertake for the benefit of the Issuer not to reduce the SVR on each loan below the ECB rate plus its current margin over the ECB rate on the issue date (the SVR floor level). DBRS has thus given credit to the SVR floor level in the cash flow analysis of the transaction structure. DBRS has additionally stressed the historic spread between the ECB rate and the three-month Euribor rate in the cash flow analysis.

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## Origination and Servicing

DBRS conducted an operational review of the mortgage servicer, Pepper Finance Corporation (Ireland) DAC trading as Pepper Asset Servicing (PAS), in February 2018 in Dublin, Ireland. DBRS considers the servicing practices of PAS to be consistent with the overall Irish market.

PAS was founded in September 2012 following the purchase of the Irish residential mortgage portfolio from GE Money. The company is a wholly owned subsidiary of Pepper Group Limited (Pepper or the group). Along with Australia and Ireland, Pepper has also established companies in the UK, Spain, South Korea, Cyprus and Italy. As of June 2017, the group had AUD 53.3 billion of assets under management globally. The global lending book stood at of AUD 8 billion and a global servicing portfolio of approximately AUD 45.3 billion.

Although PAS is primarily involved in servicing residential mortgages and commercial real estate loans, the company moved into lending with the launch of an Irish residential lending programme in early 2016 and a commercial real estate lending programme in June 2017.

As of December 2017, PAS had 413 employees operating across two Irish sites in Shannon and Dublin with a servicing portfolio just over EUR 16 billion. The portfolio has grown steadily year-on-year since 2012 and increased significantly in October 2015 when PAS took over the servicing of a EUR 5.5 billion portfolio of Irish residential loans originated by the Bank of Scotland. The portfolio includes residential mortgages, 41% of the portfolio, commercial real estate assets, 45% of the portfolio and BTL loans comprising the remaining 14%.

DBRS does not rate PAS or its Australian parent, Pepper.

## Transaction Structure

### Transaction Summary

<b>Currencies</b>	Issuer's assets and liabilities are denominated in euros (EUR).
<b>Relevant Jurisdictions</b>	The loan contracts and transaction documents are governed by Irish law, except the English deed of charge, the trust deed, the agency agreement, the master definitions schedule, the cash management agreement and the Issuer account bank agreement that are governed by English law. The Issuer is incorporated under Irish law.
<b>Basis Risk Hedging</b>	Not hedged.
<b>Interest Rate Hedging</b>	N.A.
<b>General Reserve Fund (GRF)</b>	Provides credit and liquidity support to the rated Notes. It is funded from available revenue receipts from the issue date.
Initial Amount (on the issue date):	EUR 0
Target Amount:	
After the issued date until the general reserve fund reduction date (October 2020): The initial general reserve fund required amount.	EUR 3,946,055 0.25% of the initial balance of the mortgage loans as at 30 September 2018 The GRF does not amortise during this period.
On or after the general reserve fund reduction date (October 2020): The ongoing general reserve fund required amount.	Higher of (1) 0.25% of the outstanding balance of the mortgage loans and (2) 0.10% of the initial balance of the mortgage loans as at 30 September 2018. Floor: It will be floored at 0.10% of the initial balance of the mortgage loans as at 30 September 2018.
At any time after the Class A, Class B, Class C, Class D and Class E Notes have all been fully redeemed	0 Any amount standing to the GRF will be part of revenue funds.
At any time when the outstanding balance of the mortgage loans is 0.	0 Any amount standing to the GRF will be part of revenue funds.
Amortisation	At any time but only on or after the general reserve fund reduction date (October 2020).
<b>Liquidity Reserve Fund (LRF)</b>	Available to cover revenue shortfall. It is funded from available principal receipts from the issue date.
Initial Amount (on the issue date):	EUR 3,946,055
Target Amount:	
Prior and excluding the LRF date (January 2021):	Any shortfall between GRF balance and GRF target amount to meet the target of 0.25% (mortgage balance at closing). If there is no shortfall on the GRF then the LRF will be equal to 0.
On and after the liquidity reserve start date (January 2021) and the <b>LRF start condition being met 1</b> :	4.0% of the Class A notes balance at closing: [Prior to the LRF Amortisation Date (April 2025)]

**1** Liquidity reserve start condition: It is the condition that, as at the liquidity reserve start date (interest payment date falling in January 2021), the amount standing to the credit of the general reserve fund is (after application of available funds in accordance with the priorities of payments) less than 0.15% of the aggregate capital balance of the mortgage loans as at 30 September 2018.

**2** Liquidity reserve amortisation condition: Neither the seller nor the servicer is in default of its obligations under any of the transaction documents on each determination date.

### Transaction Summary (CONTINUED)

**Liquidity Reserve Fund (LRF)**

(1) If the **LRF Amortisation condition is met 2:**

LRF = higher of (1) 4% of the outstanding balance of the Class A notes as at the immediately preceding determination date and (2) 1% of the outstanding balance of the Class A notes as at the issue date.

[After the LRF Amortisation Date (April 2025)]

(2) If the **LRF Amortisation condition is NOT met**

LRF = an amount equal to the LRF required amount as at the immediately preceding determination date.

[After the LRF Amortisation Date (April 2025)]

LRF = 0

(1) After the Class A notes have been redeemed in full

and/or

(2) if the LRF start conditions is NOT met on the LRF Start date (January 2021).

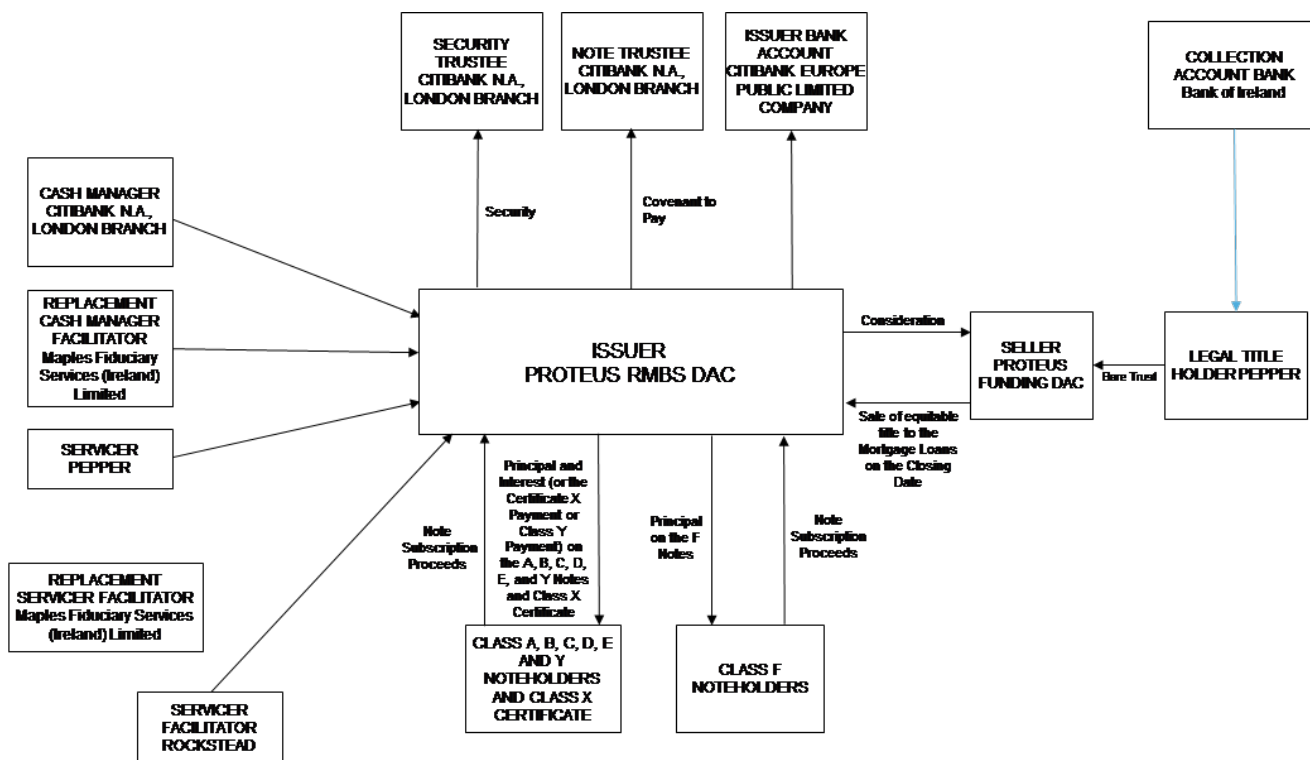
**1** Liquidity reserve start condition: It is the condition that, as at the liquidity reserve start date (interest payment date falling in January 2021), the amount standing to the credit of the general reserve fund is (after application of available funds in accordance with the priorities of payments) less than 0.15% of the aggregate capital balance of the mortgage loans as at 30 September 2018.

**2** Liquidity reserve amortisation condition: Neither the seller nor the servicer is in default of its obligations under any of the transaction documents on each determination date.

Principal receipts from loans can be used to support liquidity for the notes and they are not subject to PDL triggers for any of the rated notes.

The liquidity support is provided through (1) the application of available principal receipts to cure revenue shortfalls, (2) the application of the funds standing to the credit of the liquidity reserve fund to cure revenue shortfalls in respect of the Class A Notes and the Class X Certificate; and (3) in respect of the Floating Rate Notes and the Class X Certificate, amounts standing to the credit of the General Reserve Fund.

The transaction structure is summarised below:



**Counterparty Assessment  
Servicer and Backup Servicer**

Pepper is the portfolio servicer. DBRS considers the servicing practices of Pepper to be consistent with the overall Irish market. Maples Fiduciary Servicer (Ireland) Limited has been engaged to act as the replacement servicer facilitator to ensure the continuity of the mortgage portfolio servicing.

#### **Collection Account Bank and Commingling Risk**

Bank of Ireland (rated A (low) with a Stable trend by DBRS) is the collection account bank in the transaction. The amounts collected in the collections account will be transferred to the Issuer transaction account on the next business day following the receipt of such amounts to the collection account. If the collection account provider is downgraded below BBB, the collection account bank will be replaced by an appropriate rated bank within 30 business days. To mitigate commingling risk, the legal title holder provided a declaration of trust to hold all amounts standing to the credit of the collections account on trust for the Issuer. Moreover, the rated notes are also supported by a general reserve fund, which is 0.25% of the rated notes' balance and is expected to support temporary disruption in liquidity to pay interest on the rated notes. Furthermore, DBRS received the borrower's distribution of payments and considers that they are evenly distributed within a month.

#### **Issuer Account Bank**

Citibank Europe plc (Citibank Europe) is the account bank in the transaction. DBRS publicly rates Citibank at a level sufficient for it to act as the account bank in the transaction in line with DBRS's Legal Criteria for European Structured Finance Transactions methodology. According to the transaction documents, in the event of a breach of the rating level of "A" (or an equivalent rating) of the account bank, the account bank will be replaced with an appropriately rated institution within 30 business days. This is sufficient for DBRS to consider Citibank Europe an eligible counterparty for this role.

#### **Authorised Investments**

Funds standing to the credit of the transaction account may be invested in authorised investments. The authorised investments are expected to be in accordance with DBRS's *Legal Criteria for European Structured Finance Transactions* methodology for eligible investments.

#### **Set-Off Risk**

Some borrowers in the pool have deposits with Danske, for an aggregate amount of approximately EUR 671,842 which is covered under the Irish deposit protection scheme. DBRS has not accounted for such potential loss in its cash flow analysis as this risk is mitigated given that there is no deposit exceeding EUR 100,000 and the average size of the deposit is approximately EUR 1,826.

#### **Available Funds**

The available revenue funds to be applied in accordance with the pre-enforcement revenue waterfall are as follows:

- Interest collections.
- Interest on the Issuer accounts and income from authorised investments.
- Amounts standing in the transaction account (excluding principal receipts).
- Other net income of the issuer (excluding principal receipts).
- Any available principal funds to be applied as available revenue funds according to the principal priority of payments for the purposes of curing a revenue shortfall; and
- Amounts available under the general reserve fund.

The available principal funds to be applied in accordance with the pre-enforcement principal waterfall are as follows:

- Principal collections.
- Amounts available under the liquidity reserve fund.
- Available revenue funds allocated to crediting a debit balance on the Class A to Class F PDL.
- Principal from any authorised investments.

Principal receipts can be applied by the Issuer in the funding of interest shortfall and replenishment of the liquidity reserve fund up to the required level before using these receipts to pay principal on the notes.

**Priority of Payments**

The Issuer applies the available funds in accordance with separate priorities of payments for interest and principal.

**Revenue Priority of Payments:**

1. Senior Fees, Costs and Expenses (Note Trustee and Security Trustee);
2. Other Senior Fees, Costs and expenses;
3. Third party expenses up to a maximum of EUR 100,000 per annum;
4. Issuer Profit Amount (EUR 1,000 per annum);
5. Certificate X Payment<sup>1</sup>;
6. Class A Interest (in respect to the immediately preceding calculation period);
7. Class A Interest (in respect to calculation periods prior to the immediately preceding calculation period);
8. Class A PDL;
9. Class B Interest (in respect to the immediately preceding calculation period);
10. Class B Interest (in respect to calculation periods prior to the immediately preceding calculation period);
11. Class B PDL;
12. Class C Interest (in respect to the immediately preceding calculation period);
13. Class C Interest (in respect to calculation periods prior to the immediately preceding calculation period);
14. Class C PDL;
15. Class D Interest (in respect to the immediately preceding calculation period);
16. Class D Interest (in respect to calculation periods prior to the immediately preceding calculation period);
17. Class D PDL;
18. Class E Interest (in respect to the immediately preceding calculation period);
19. Class E Interest (in respect to calculation periods prior to the immediately preceding calculation period);
20. Class E PDL;
21. General Reserve Fund up to the target amount;
22. Class F PDL;
23. Third party expenses that remain unpaid; and
24. Class Y payment on the Class Y notes.

**Principal Priority of Payments:**

1. Revenue shortfall;
2. Liquidity reserve up to the target amount;
3. Principal due on the Class A Notes until paid in full;
4. Principal due on the Class B Notes until paid in full;
5. Principal due on the Class C Notes until paid in full;
6. Principal due on the Class D Notes until paid in full;
7. Principal due on the Class E Notes until paid in full;
8. Principal due on the Class F Notes until paid in full;
9. Class Y Notes principal to €100,000 on any IPD
10. Any excess available towards the class X certificate up to a cumulative amount of EUR 150,000; and
11. Any excess available towards the Class Y Payment.

1. Class X Payment is defined as 0.09% of the aggregate current balance of the mortgage loans multiplied by the number of days in the relevant interest period and divided by 360.

## PDL

The PDL is recorded as a debit ledger of the following items (without double counting):

- Available principal receipts (including amounts held in the liquidity reserve fund) applied to cure interest shortfall;
- Losses (after applying any recoveries) affecting the mortgage loans in the mortgage portfolio;

The use of principal receipts to fund any revenue shortfall is not subject to any triggers.

## **Post-Enforcement Priority of Payments**

1. Senior Fees, Costs and Expenses (Note Trustee and Security Trustee);
2. Other Senior Fees, Costs and expenses;
3. Interest and principal on the Class A notes and the certificate X payment;
4. Interest and principal on the Class B notes;
5. Interest and principal on the Class C notes;
6. Interest and principal on the Class D notes;
7. Interest and principal due on Class E notes;
8. Interest and principal due on Class F notes;
9. Third party expenses and corporation tax;
10. Issuer profit amount;
11. Class Y payment and principal due on the Class Y notes to EUR 100,000 on any IPD or until repaid in full on final the maturity date or the optional redemption date; and
12. Any excess towards the Class Y notes.

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## Legal Structure

On the Issue Date, the Issuer acquired the beneficial title to the collateral. As security for the payments of all monies payable with respect to the notes, the Issuer entered into a deed of charge, creating security in favour of the trustee consisting of a first-ranking fixed charge over the Issuer's rights, title, benefit and interest in and to the underlying collateral. The transaction structure is designed to ensure that any insolvency of the originator will not interrupt the timely payments of principal and interest to investors. The Issuer charged its rights, title and interest in and to the mortgages to the trustee. The Issuer will have no recourse to the originator except in limited circumstances.

## Representations and Warranties

The mortgage sale agreements contain representations and warranties given by Proteus Funding DAC (as the relevant seller) in relation to the mortgage portfolio. A breach of any of the representations and warranties would require the relevant seller to indemnify the Issuer. The indemnification payments are capped and subject to a minimum claim value, as described above. The relevant seller may have limited resources available at its disposal to fund indemnification. The relevant seller is able to claim for indemnification from the relevant original seller, with such amounts being passed to the Issuer. Any claims are time limited to 14 months from the original closing date, December 2017, and are monetary limited. DBRS expects any future breach of warranty to be limited.

## Flexible Redrawing, Further Advances and Product Switches

The Issuer is not obliged to grant any flexible redrawing, further advance or a product switch from any borrower according to the transaction documents unless required to do so in accordance with the applicable law or regulation.

**Events of Default**

The transaction events of default consist of:

- Non-payment of principal or interest or the Certificate X payment due in respect of the Class X certificate or the most senior class of notes outstanding and the default continues for: (1) a period of seven business days in the case of principal, or (2) 14 Business Days in the case of interest.
- The Issuer fails to perform or observe any of its other obligations and the failure continues for a period of 30 days (or as the Note Trustee may permit) following the service by the Note Trustee on the Issuer.
- Any representation and warranty made by the Issuer is incorrect and has a material adverse effect on the timing or amount of payments of principal or interest on the most senior class of notes and such misrepresentation remains for 30 days.
- An insolvency event in respect of the Issuer.
- It becomes unlawful for the Issuer to perform or comply with its obligations under the transaction documents.

**Deferral of Interest**

As long as the Class B, Class C, Class D, Class E and Class F notes are not the most senior class of notes outstanding, interest on the Class B, Class C, Class D, Class E and Class F notes can be deferred if there is a shortfall in available funds to pay such liabilities. Such deferral of interest will not be an event of default. Any amounts of deferred interest in respect of a relevant class of notes shall accrue interest.

**Collateral Summary**

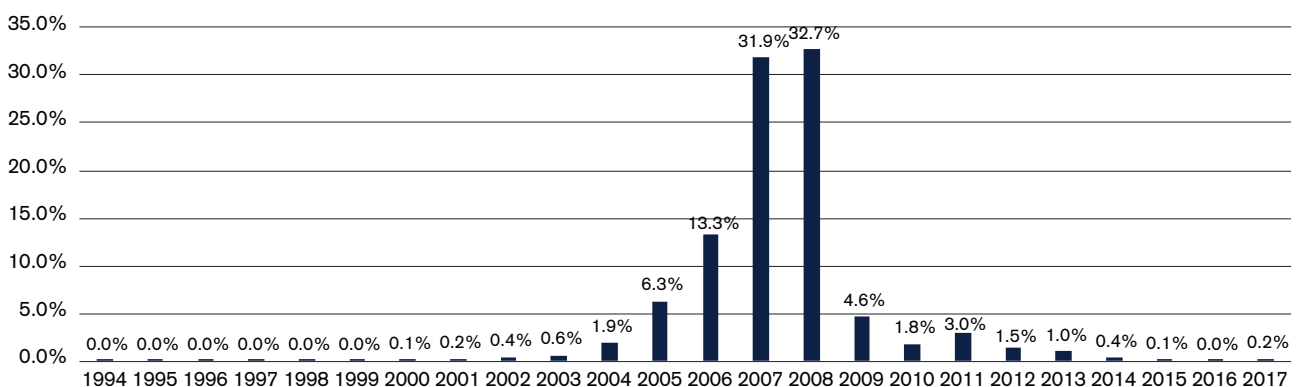
**Data Quality**

DBRS received the provisional mortgage portfolio loan tape to conduct the credit analysis of the collateral pool (cut-off date of 30 September 2018). DBRS received performance history for the loans in the mortgage portfolio. The performance history covered the period starting January 2008 until March 2017. DBRS viewed the Agreed Upon Procedures (AUP) report. The sources of information used for these ratings are Pepper and Goldman Sachs. DBRS also accessed historical three-month Euribor rates and the ECB rate from Bloomberg. DBRS considers the information available to it for the purposes of providing these ratings to be of satisfactory quality.

**Historical Performance Data**

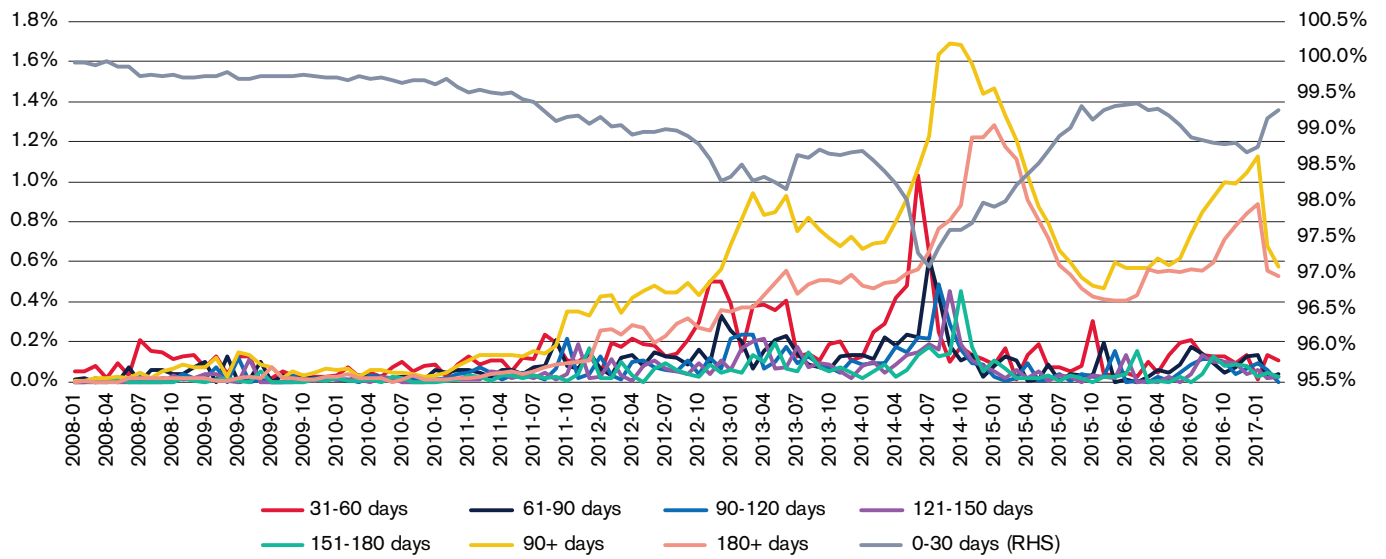
As of the cut-off date, the securitised portfolio has approximately 10.9 years of seasoning. The chart below shows the proportion of loans in the mortgage portfolio by the origination vintage.

**Exhibit 1: Origination Date (%)**



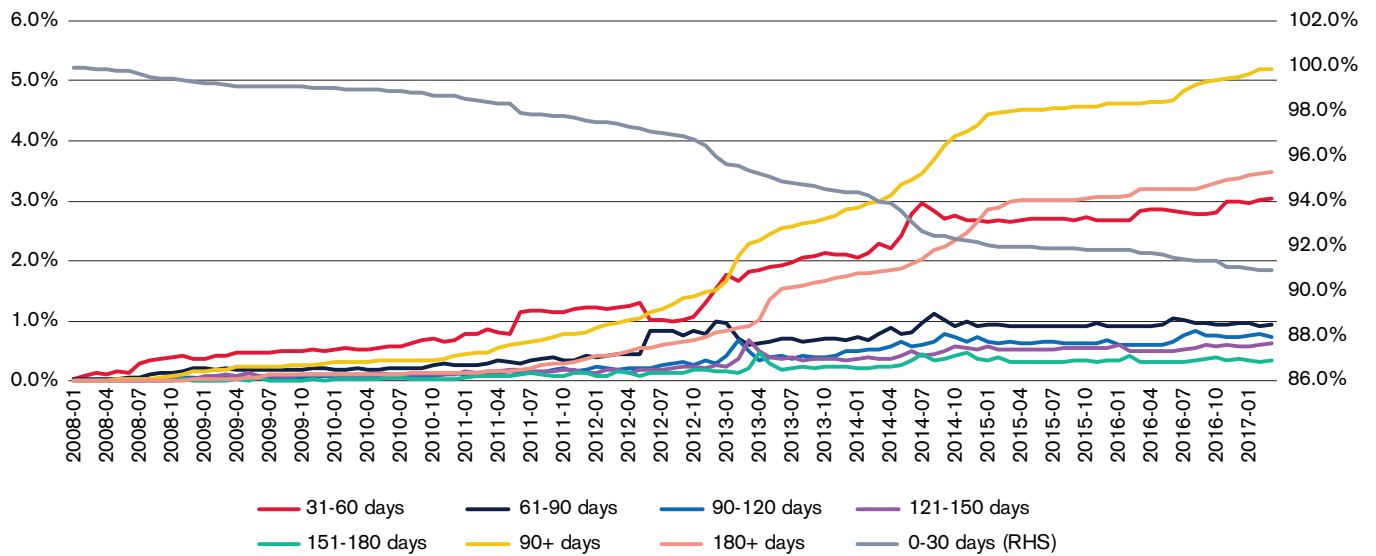
Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper.

**Exhibit 2: Dynamic Arrears Proteus Entire Pool**



Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper.

**Exhibit 3: Cumulative Arrears Proteus Entire Pool**

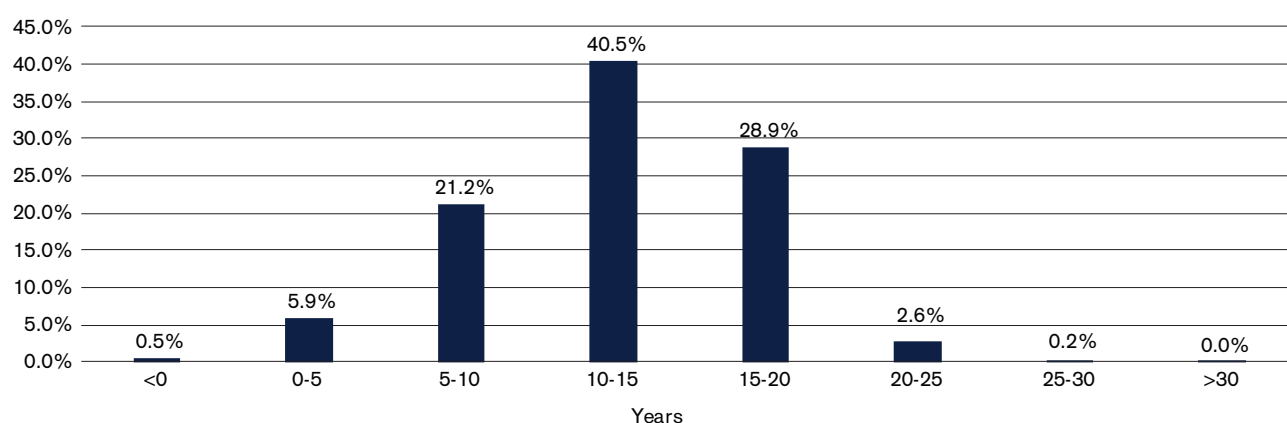


Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper.

Summary Statistics (DBRS Calculations)	Proteus RMBS DAC
Number of Mortgage Loans	11,958
Number of Borrowers	9,587
Total Original Balance (EUR)	2,593,283,229
Total Current Balance (EUR)	1,578,422,092
Average Loan Original Balance (EUR)	216,866
Average Loan Current Balance (EUR)	131,997
Maximum Original Balance (EUR)	7,225,808
Maximum Current Balance (EUR)	5,015,421
WA Original LTV*	54.2%
WA Current LTV Indexed*	64.8%
Proportion of loans with CLTV(ind)>100%*	15.4%
WA Seasoning (Years)	10.9
WA Residual Term (Years)	12.9
WA Interest Rate	1.42%
Interest Only Loans	34.7%
Self-Employed	21.4%
Income Self-Certified	0.0%
Owner Occupied	74.3%
Buy-to-Let	25.7%
Purchase Loans	64.9%
Re-mortgage Loans	35.1%
>0 and <=1 Month in Arrears	98.5%
>1 and <=2 Months in Arrears	0.20%
>2 and <=3 Months in Arrears	0.18%
> 3 Months in Arrears	1.14%

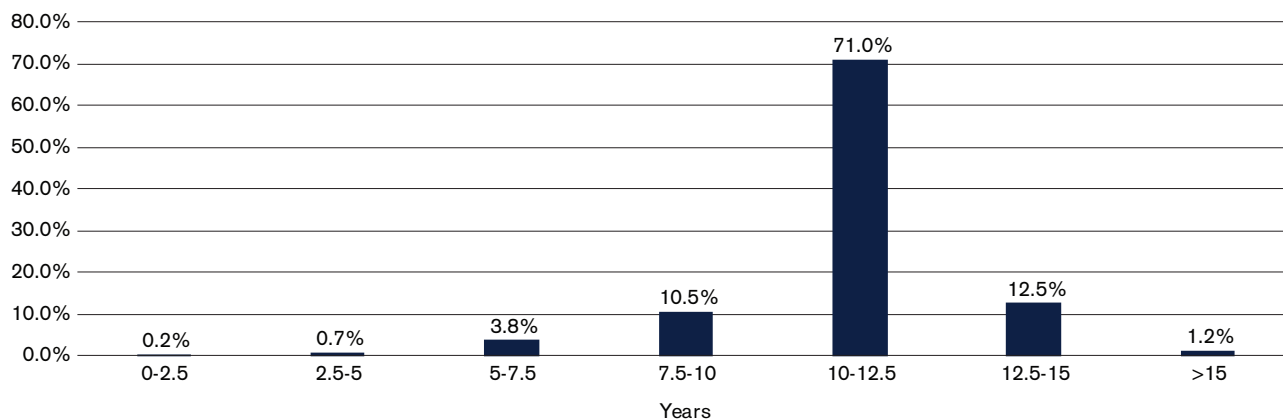
\* DBRS Calculation: the WA Indexed LTV was calculated giving 50% credit to increase in house prices.

#### Exhibit 4: Remaining Term (%)



Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper.

**Exhibit 5: Seasoning (%)**

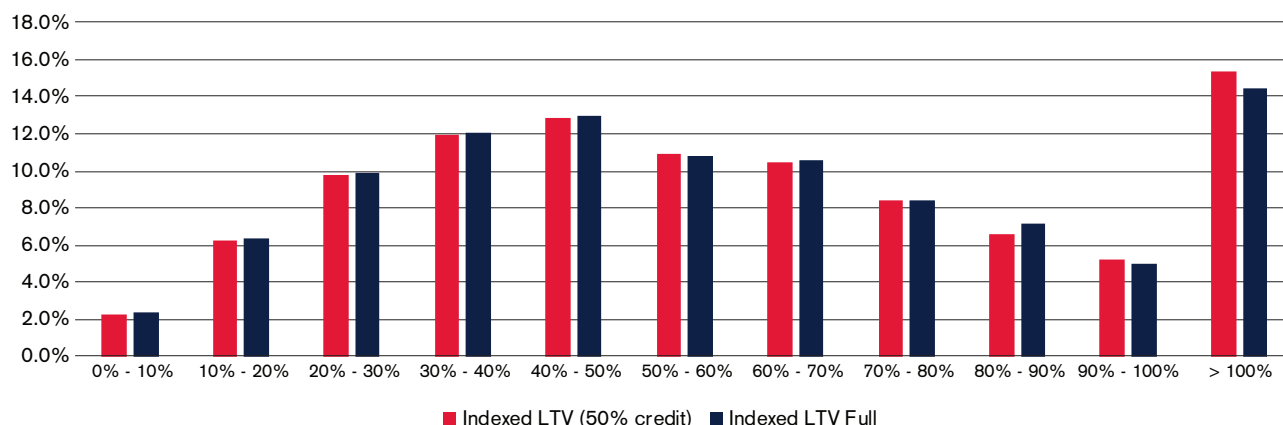


Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper.

**Interest Rates**

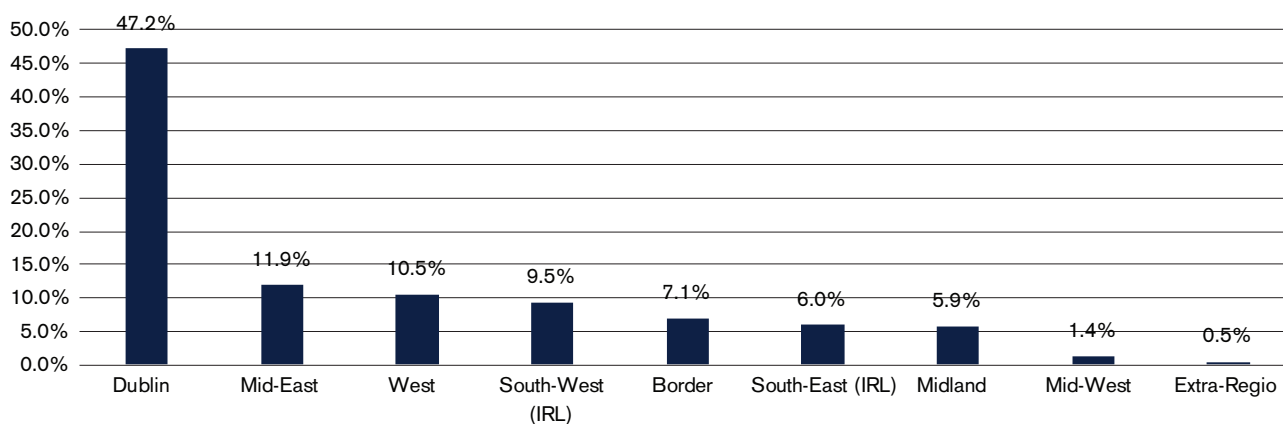
The WA interest rate of the portfolio is 1.416%. The majority of the loans track the ECB rate plus a spread (79.9% of the mortgage portfolio, with a WA coupon of 0.672%). The remaining portion pays the SVR set by Pepper at ECB Base Rate plus a margin (19.0% of the mortgage portfolio, with a WA coupon of 4.438%). The remaining 1.1% of the portfolio pays either a fixed rate of interest or other rate of interest.

**Exhibit 6: LTV Distribution (%)**



Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper. The LTV Distribution is based on DBRS calculations.

**Exhibit 7: Regional Distribution (%)**



Source: Proteus RMBS DAC pool tape, Goldman Sachs International, Pepper.

### Summary of the Cash Flow Scenarios

To assess the timely payment of interest and the ultimate payment of principal on the rated notes, DBRS tested its default curves (front-ended and back-ended), its prepayment curves (low, medium and high constant prepayment rate (CPR) assumptions) and interest rate stresses as per its *Interest Rate Stresses for European Structured Finance Transactions* methodology. Because of the low prepayment rates observed, DBRS also tested a 0% CPR assumption.

Based on a combination of these assumptions, a total of 16 cash flow scenarios were built to test the performance of the rated notes (see table below).

Scenario	Pre-Payments	Default Timing	Interest Rate
1	0%	Front	Upward
2	0%	Front	Downward
3	0%	Back	Upward
4	0%	Back	Downward
5	5%	Front	Upward
6	5%	Front	Downward
7	5%	Back	Upward
8	5%	Back	Downward
9	10%	Front	Upward
10	10%	Front	Downward
11	10%	Back	Upward
12	10%	Back	Downward
13	20%	Front	Upward
14	20%	Front	Downward
15	20%	Back	Upward
16	20%	Back	Downward

### Interest Rate Stresses

DBRS applied its standard interest rate stresses as detailed in its *Interest Rate Stresses for European Structured Finance Transactions* methodology.

The rated notes pay an interest rate linked to the three-month Euribor rate and, in comparison, the loans in the mortgage portfolio pay interest linked to the ECB Base Rate plus a spread (79.9% of the mortgage portfolio by outstanding loan balance), or the SVR set by Pepper (19.0% of the mortgage portfolio). The remaining 1.1% of the loans pay a fixed rate of interest for life or another index. This gives rise to basis risk that is not hedged in the transaction.

To mitigate this risk, the servicer is expected to maintain the SVR rate at a minimum of the ECB Base Rate plus 4.75%. Pepper has the flexibility to increase the SVR if there is an increase in the ECB Rate, but only in an amount equal to such increase, or decrease the SVR following a decrease in the ECB Rate but only in an amount equal to such decrease and subject to the floor mentioned above.

DBRS has thus given credit to the SVR floor in the cash flow analysis of the transaction structure. DBRS has additionally stressed the historic spread between the ECB rate and three-month Euribor rate in the cash flow analysis.

**Probability of Default, Loss Given Default and Expected Losses**

The lifetime probability of default (PD), loss given default (LGD) and expected losses (EL) estimated for the mortgage portfolio were used as an input for the cash flow analysis of the transaction structure and its supporting features.

Rating Scenario	PD	LGD	EL
AAA	27.48%	65.08%	17.88%
AA (high)	24.37%	57.17%	13.93%
AA	21.12%	55.54%	11.73%
AA (low)	19.54%	54.19%	10.59%
A	17.13%	50.91%	8.72%
BBB	12.85%	44.92%	5.77%
BB	7.84%	38.29%	3.00%
B	4.74%	33.42%	1.58%

**Timing of Defaults and Recovery Lag**

DBRS utilised ten-year front- and back-loaded default timing curves and assumed a recovery lag of 48 months.

**Risk Sensitivity**

DBRS estimated the PD and LGD for the pool based on a review of historical data and an assessment of the mortgage pool characteristics. Adverse changes to asset performance may cause stresses to base case assumptions and therefore have a negative impact on the credit ratings. The tables below illustrate the sensitivity of the rating to various changes in the base case default rates and loss severity assumptions relative to the base case assumptions, in the respective rating scenario of the following classes:

**Class A**

		Increase in Default Rate %		
		0	25	50
Increase in LGD %	0	AAA	AA (high)	AA
	25	AA (high)	AA (high)	AA
	50	AA (high)	AA	A (high)

**Class B**

		Increase in Default Rate %		
		0	25	50
Increase in LGD %	0	AA (high)	AA (low)	A
	25	AA	A (high)	BBB (high)
	50	AA (low)	A	BBB (high)

**Class C**

		Increase in Default Rate %		
		0	25	50
Increase in LGD %	0	AA (low)	A	BBB (high)
	25	A (high)	A (low)	BBB
	50	A (low)	BBB (high)	BBB (low)

**Class D**

		Increase in Default Rate %		
		0	25	50
Increase in LGD %	0	A	BBB (high)	BBB
	25	BBB (high)	BBB	BBB (low)
	50	BBB	BBB (low)	BB (high)

**Class E**

		Increase in Default Rate %		
		0	25	50
Increase in LGD %	0	BBB	BB (high)	BB (high)
	25	BBB (low)	BB (high)	BB
	50	BB (high)	BB	BB (low)

## Appendix 1

### Servicing

All primary and special servicing activities within PAS are centralised in the company's two offices in Shannon and Dublin. While some external resources are used for the management of defaulted loans, specifically legal enforcement cases, the company has no offshore operations outside Ireland.

As of December 2017, PAS employed 413 people across two locations with 64% based in the company's Shannon headquarters and the remaining staff based in the Irish capital. Senior management averages over 15 years' experience including nearly four years with the company, although half of the executives were with GE prior to the creation of PAS. The servicing management team is also highly qualified, averaging around 13 years' experience and seven years with PAS and its Irish predecessor.

The company enjoys a healthy staff turnover rate of around 9%, which is below the Irish market average and down from 12% reported in 2015. Comprehensive training and personal development plans are in place for all staff and employees average around 40 hours of training annually. PAS has a dedicated training manager responsible for tracking and managing the company's training needs as well as ensuring compliance with regulatory training requirements.

PAS's servicing activities benefit from significant automation for loan administration, bespoke applications for special servicing and strong reporting systems supported by a robust data warehouse linking all of the company's systems. All mortgage payments are on monthly schedules and the majority of performing loans are paid via direct debit or bank transfer. An operations team, segregated from the other servicing functions, is responsible for collecting and processing all incoming mail including cheques. Interest rate adjustment for variable-rate loans is an automated process as is the generation of all standard letters including collection notices.

PAS operates a robust and sophisticated IT platform which has been significantly enhanced over the last several years and the company continues to devote significant resources to ongoing development of the systems. PAS launched a new website in February 2015 which included enhanced functionality for borrowers including the ability to view account information, make debit card payments, download documents and submit online enquiries.

The company also benefits from good operational performance and strong management reporting activities. Key performance metrics for the customer service and special servicing areas are consistent and, in some cases, better than their Irish peers. Average hold times and abandonment rates, for instance, are around ten seconds and under 3%, respectively. The reporting systems enable PAS to more effectively manage resources, implement training programmes and identify potential risks and initiate action plans.

For collections and default management activities, PAS adheres to a case ownership approach for managing all arrears cases while primary servicing is organised functionally. The current number of arrears cases per analyst is around 100, which DBRS considers manageable.

As an experienced NPL servicer, PAS uses a variety of strategies in attempting to cure arrears and defaults, viewing litigation and legal enforcement as the least favourable option. The restructuring and modification schemes used by PAS include reduced payment arrangement, conversion to interest-only or rate reduction, payment deferrals, term extensions and arrears capitalisation. The company has developed a rigorous process focusing on the identification of the most suitable solutions for borrowers. The structured workflows developed by PAS are strictly aligned to Code of Conduct on Mortgage Arrears regulations and include financial tools integrated into the servicing system to assist staff in the decision-making process.

The company's re-default rate for modified loans is approximately 10%, with most loans re-defaulting within the first six months of the restructuring. This compares favourably with the Irish market average of 20%. PAS also offers additional workout schemes for the most severe defaults including assisted voluntary sales, voluntary surrender and mortgage to rent, all of which are encouraged by the Irish regulators.

Recovery timelines for defaulted loans are generally consistent with the Irish market. The average timeline from litigation (initiated around 180 days following the first missed payment) to completion of legal proceedings is around 36 months, driven in large part by the regulatory environment and delays within some Irish courts. Repossessed assets are generally sold within eight months and approximately 95% are sold privately with PAS offering some support to borrowers. These figures are within DBRS's recovery time assumptions for Ireland and appear to be compliant with the national regulatory guidelines.

The repossessed portfolio currently includes around 70 assets valued at approximately EUR 30 million and is not expected to grow significantly in the short term. For all repossessed properties, at least two full valuations are prepared as a guide to set the sale price. The valuations are undertaken by a sales agent on an approved panel and include a full condition report and details of comparatives used in arriving at the appraised value. PAS has an internal property management team that reviews every valuation report.

### Summary Strengths

- Solid servicing experience among senior and servicing management teams.
- Healthy turnover rates below the Irish market average albeit the majority of staff hired in the last three years.
- Pro-active early arrears management processes coupled with robust special servicing application.
- Strong risk management and internal control environment.

### Summary Weaknesses

- Independent servicer operating in the Irish market with financial support from an unrated parent.

**Mitigants:** Stable financial trend since company's inception in 2012. Pepper has a strong presence in its home market. Ireland comprises around half of the group's global servicing portfolio.

- No securitisation experience within the Irish market.

**Mitigants:** PAS and the wider Pepper Group has significant client reporting experience within Ireland and other European jurisdictions where the group has been involved in securitisation. The Pepper Group has developed a Residential Mortgage-Backed Securitisation programme in Australia. PAS also benefits from robust technology and reporting systems.

**Opinion on Back-Up Servicer:** Currently, there is not a back-up servicer in place. However, Rockstead Limited will be acting as the back-up servicer facilitator in the transaction.

## Appendix 2

### Methodologies Applied

The principal methodology applicable to assign ratings to the above-referenced transaction is *Master European Residential Mortgage-Backed Securities Rating Methodology and Jurisdictional Addenda* (October 2018).

Other methodologies referenced in this transaction are listed below.

- *Legal Criteria for European Structured Finance Transactions*
- *Operational Risk Assessment for European Structured Finance Servicers*
- *Operational Risk Assessment for European Structured Finance Originators*
- *Interest Rate Stresses for European Structured Finance Transactions*

The rating methodologies and criteria used in the analysis of this transaction can be found at:

<http://www.dbrs.com/about/methodologies>. Alternatively, please contact [info@dbrs.com](mailto:info@dbrs.com).

### Surveillance Methodology

The transaction is monitored by DBRS in accordance with its *Master European Structured Finance Surveillance Methodology*, and available at [www.dbrs.com](http://www.dbrs.com) under the heading Methodologies. Alternatively, please contact [info@dbrs.com](mailto:info@dbrs.com).

#### Notes:

All figures are euros unless otherwise noted.

This report is based on information as of 19 December 2018, unless otherwise noted. Subsequent information may result in material changes to the rating assigned herein and/or the contents of this report.

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