DRAFT

ABSPERPETUAL

CONDITIONAL PREPAYMENT RATE (CPR)
Derivation of the Periodic CPR for publication on ABSPerpetual

Periodic Conditional Prepayment Rate (CPR) is the annualised percentage of a mortgage pool's principal balance that will be paid off each period ahead of schedule. A constant rate for prepayment is assumed and is calculated as follows:

$$CPR = 1 - (1 - SMM)^{12}$$

Single Monthly Mortality (SMM) is the prepayment rate of the mortgage pool in a given month calculated by:

$$SMM = \frac{Total\ Prepayments}{Scheduled\ Pool\ Balance}$$

Total Prepayments within a reporting period can be determined from the principal collections within the month and the expected scheduled principal payments.

$$Principal\ Collections = RT254$$

The reported data does not contain Scheduled principal payments as a data field but this can be derived from the change in Scheduled Balance month to month. Loans with a status for Repurchased by Seller (6 or 7) will be substituted and are excluded from the calculation:

$$Sceduled\ Principal\ Payment = Aggregate\ previous\ Scheduled\ Balance\ (RL013)^{\#}$$
$$-Aggregate\ current\ Scheduled\ Balance\ (RL013)$$

Where Account Status RL049 = 1, 2, 3, 4 or 5 – Performing, Arrears, Default, Foreclosure or Redeemed respectively

Loans that exited the pool$^{\#\#}$ in the previous month are excluded from the aggregation (RL049 = 5, 6 or 7).

As the principal collections may also include substituted loans, further advances and redraws, the value must be adjusted to determine the true prepayments.

- **Substitutions** can be sourced directly from the transaction data:

  $$Inward\ Substitutions = RT112$$
  $$Outward\ Substitutions = RT113$$

- **Further advances** can be determined by tracking the approval amount changes from month to month (substituted loans are excluded)

  $$Further\ Advances = Aggregate\ current\ Most\ Recent\ Approval\ amount\ (RL011)$$
  $$-Aggregate\ previous\ Most\ Recent\ Approval\ Amount\ (RL011)$$

  Where RL049 = 1, 2, 3, 4, or 5

  Loans that exited the pool in the previous month are excluded from the aggregation.

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- <u>Redraws</u> are also sourced directly from the reported data:

$$Redraws = RT111$$

This yields the following formula for total prepayments:

$$Total\ Prepayments = Principal\ Collections - Scheduled\ Principal\ Payment \\ -Inward\ Substitions + Outward\ Substitutions \\ -Further\ Advances - Redraws$$

Scheduled Pool Balance is determined based on the Opening Balance from the reported data and Scheduled Principal Payment from above:

$$Scheduled\ Pool\ Balance = Opening\ Pool\ Balance\ (RT253) \\ -Scheduled\ Principal\ Payment$$

Based on the above, the SMM calculation breaks down to:

$$SMM \quad = \frac{Total\ Prepayments}{Scheduled\ Pool\ Balance}$$

$$= \frac{Principal\ Collections - Scheduled\ Principal\ Payment - Inward\ Substitutions + Outward\ Substitutions - Further\ Advances - Redraws}{Opening\ Pool\ Balance - Scheduled\ Principal\ Payment}$$

$$= \frac{RT254 - (Previous\ aggregate\ RL013 - Current\ aggregate\ RL013) \\ -RT112 + RT113 \\ -(Current\ aggregate\ RL011 - Previous\ aggregated\ RL011) - RT111}{RT253 - (Previous\ aggregate\ RL013 - Current\ aggregate\ RL013)}$$

The value for SMM is then substituted into the formula to determine CPR:

$$\boldsymbol{CPR = 1 - (1 - SMM)^{12}}$$