

The Co-operative Bank Early Repayment Recovery Charge Formula

The formulas used to calculate the applicable early repayment recovery charge are outlined below:

A. Interest rate fixed for whole term

The early repayment recovery charge is calculated as: $VFP - u$

where:

VFP is the value of forgone payments calculated as set out below:

$$VFP = p \times \left(\frac{1 - v^n}{\frac{i}{f}} \right) \times (1 + i)^{\frac{d}{365}}$$

p is the amount of each payment payable under the fixed rate contract

v is calculated as follows:

$$v = \frac{1}{1 + \frac{i}{f}}$$

i is the annual fixed interest rate determined as set out below and expressed as a decimal fraction

f is the number of payments to be made per year under the fixed rate contract.

n is the number of payments yet to be made under the fixed rate contract

d is the number of days between the payment due date that immediately precedes the date of full prepayment and the date of full prepayment

u is the unpaid balance at the time of the full prepayment.

If the result of $VFP - u$ is less than zero, the early repayment recovery charge is zero.

The annual fixed interest rate i is an adjusted interest rate determined by **The Co-operative Bank**, based on the prevailing annual interest rates usually offered by **The Co-operative Bank**, at the date of full prepayment or part prepayment, on new loans of the same or a similar type as the loan. If the remainder of the fixed interest period of the loan is:

- (i) equal to or more than six months, then the adjusted interest rate will be based on the rates for loans of the same or similar type as the loan for terms usually offered by **The Co-operative Bank** that are immediately less than, and exceeding, the outstanding fixed interest period of the loan as at the date of full prepayment or part prepayment; and
- (ii) less than six months, then the adjusted interest rate will be based on the rate for loans of the same or similar type as the loan for a term of six months, and the then applicable **The Co-operative Bank** floating interest rate.

The applicable annual interest rate is based on an interpolated interest rate between these two interest rates, with the applicable term equal to the unexpired portion of the term of the fixed rate contract that is to be fully pre-paid. The annual interest rate may not correspond to the applicable carded rate (including in instances where there was a premium applied or discount given when the loan was initially set-up).

Two illustrative examples follow:

- (a) A borrower wants to make full repayment on an existing Home Loan where the loan has two years and eight months to go to the end of its fixed interest period.

At the time the Early Repayment Recovery calculation is completed The Co-operative Bank carded annual interest rate is 6.7% on two-year fixed interest rate loans, and 7.1% on three-year fixed interest rate loans.

$$[8/12 \times 7.1\%] + [4/12 \times 6.7\%] = 6.97\%, \text{ } i \text{ equals } \mathbf{6.97\% \text{ p.a.}}$$

- (b) Where the fixed term interest rate initially applied to the loan when it was set up includes a 0.20% p.a. **premium**, this will be incorporated in the interpolated rate, so that *i* equals:

$$6.97\% + 0.20\% = 7.17\%, \text{ } i \text{ equals } \mathbf{7.17\% \text{ p.a.}}$$

- (c) Where the fixed term interest rate initially applied to the loan when it was set-up includes a **discount** of 0.10% p.a. this will be incorporated in the interpolated rate, so that *i* equals:

$$6.97\% - 0.10\% = 6.87\%, \text{ } i \text{ equals } \mathbf{6.87\% \text{ p.a.}}$$

For part prepayments, the result of this calculation will be adjusted so that it reflects only the interest amount that **The Co-operative Bank** would have received on an amount equal to the part prepayment.

B. Interest rate fixed for part of term

The early repayment recovery charge is calculated as: $VFP - u$

where:

VFP is the value of forgone payments calculated as set out below:

$$VFP = p \times \left(\frac{1 - v^n}{\frac{i}{f}} \right) \times (1 + i)^{\frac{d}{365}} + v^n \times (1 + i)^{\frac{d}{365}} \times EB$$

p is the amount of each payment payable under the fixed rate contract during the fixed interest period in which the contract is fully prepaid

v is calculated as follows:

$$v = \frac{1}{1 + \frac{i}{f}}$$

i is the annual fixed interest rate determined as set out below and expressed as a decimal fraction

f is the number of payments to be made per year under the fixed rate contract during the fixed interest period in which the contract is fully prepaid

n is the number of payments yet to be made under the fixed rate contract during the fixed interest period in which the contract is fully prepaid

d is the number of days between the payment due date that immediately precedes the date of full prepayment and the date of full prepayment

$$EB = u + IC - TP$$

where:

EB is the expected unpaid balance at the end of the fixed interest period in which the fixed rate contract is fully prepaid

u is as defined below

IC is the total amount of the interest charges that would have been paid in accordance with the contract during

the unexpired portion of the fixed interest period in which the fixed rate contract is fully prepaid

TP is the total of all payments that would have been paid in accordance with the contract during the unexpired portion of the fixed interest period in which the fixed rate contract is fully prepaid.

u is the unpaid balance at the time of the full prepayment.

If the result of $VFP - u$ is less than zero, the early repayment recovery charge is zero.

The annual fixed interest rate *i* is an adjusted interest rate determined by **The Co-operative Bank**, based on the prevailing annual interest rates usually offered by The Co-operative Bank, at the date of full prepayment or part prepayment, on new loans of the same or a similar type as the loan. If the remainder of the fixed interest period of the loan is:

- (i) equal to or more than six months, then the adjusted interest rate will be based on the rates for loans of the same or similar type as the loan for terms usually offered by **The Co-operative Bank** that are immediately less than, and exceeding, the outstanding fixed interest period of the loan as at the date of full prepayment or part prepayment; and
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Two illustrative examples follow:

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