

Chong Hing Bank Limited (the “Bank”)

Example Regarding the Breakdown of Principal and Interest in the Monthly Repayment and Early Repayment of Chong Hing Bank Merchant Receivables Loan

Chong Hing Bank uses “Rule of 78” method to breakdown of principal and interest in the monthly repayment of Merchant Receivables Loan. The “Rule of 78” is the calculation of the interest and principal repayment and the allocation of the two components. In principle, borrower’s repayment will be utilized to settle the interest prior to the principal. A larger proportion of the repayment made in the early stages is allocated to settle the interest and finance charges, with a smaller proportion to repay the principal. Such allocation of the repayment will reverse after more instalments have been made.

Demonstration of “Rule of 78” is as follows:

Using 12-month tenor loan as an example, weight for the 1st month interest is set as 12 units, weight for the 2nd month interest is set as 11 units, weight for the 3rd month interest is set as 10 units and so on. Weight for the last month’s interest is 1 unit. Therefore, the total interest weight is 78 ($12 + 11 + 10 + \dots + 1 = 78$). So if the merchant chooses a 12-month loan, 12/78s of the interest is assessed as the 1st month’s portion of the total interest, 11/78s of the interest is assessed as the 2nd month’s portion of the total interest and so on until the 12th month at which time 1/78s of the interest is assessed as that month’s portion of the total interest. If the tenor is 36 months, the sum of interest units for 36 months is 666 ($36 + 35 + 34 + \dots + 1 = 666$), hence 36/666s of the interest is assessed as the first month’s interest portion of a 36-month loan.

Example of calculating interest portion of each month:

A merchant borrows a 12-month loan of HK\$100,000 at a monthly flat rate of 0.21%.

Monthly interest = HK\$100,000 x 0.21% = HK\$210

Interest for the full term = HK\$210 x 12 (instalments) = HK\$2,520

Monthly repayment amount = (HK\$100,000 + HK\$2,520) / 12 (monthly payments) = HK\$ 8,543.33

Based on the Rule of 78, the amount of interest paid each month

$$= \text{Interest for the full term} \times \frac{\text{Remaining number of monthly payments}}{\text{Sum of the number of monthly instalments in the loan}}$$

(For 12 monthly payments, it will be = $12 + 11 + \dots + 2 + 1 = 78$)

The calculation is as follows:

	Interest	Principal (repaid)
The 1 st month	HK\$2,520 x 12/78 = HK\$387.69	HK\$8,543.33 – HK\$387.69 = HK\$8,155.64
The 2 nd month	HK\$2,520 x 11/78 = HK\$355.38	HK\$8,543.33 – HK\$355.38 = HK\$8,187.95
The 3 rd month	HK\$2,520 x 10/78 = HK\$323.08	HK\$8,543.33 – HK\$323.08 = HK\$8,220.26
The 4 th month	HK\$2,520 x 9/78 = HK\$290.77	HK\$8,543.33 – HK\$290.77 = HK\$8,252.56
The 5 th month	HK\$2,520 x 8/78 = HK\$258.46	HK\$8,543.33 – HK\$258.46 = HK\$8,284.87
The 6 th month	HK\$2,520 x 7/78 = HK\$226.15	HK\$8,543.33 – HK\$226.15 = HK\$8,317.18
The 7 th month	HK\$2,520 x 6/78 = HK\$193.85	HK\$8,543.33 – HK\$193.85 = HK\$8,349.49
The 8 th month	HK\$2,520 x 5/78 = HK\$161.54	HK\$8,543.33 – HK\$161.54 = HK\$8,381.79
The 9 th month	HK\$2,520 x 4/78 = HK\$129.23	HK\$8,543.33 – HK\$129.23 = HK\$8,414.10
The 10 th month	HK\$2,520 x 3/78 = HK\$96.92	HK\$8,543.33 – HK\$96.92 = HK\$8,446.41
The 11 th month	HK\$2,520 x 2/78 = HK\$64.62	HK\$8,543.33 – HK\$64.62 = HK\$8,478.72
The 12 th month	HK\$2,520 x 1/78 = HK\$32.31	HK\$8,543.33 – HK\$32.31 = HK\$8,511.03
Total	HK\$2,520	HK\$100,000

*Rounded up or down to the nearest two decimal places

The above example shows that nearly 30% of the interest for the full term is repaid in the first two monthly payments.

Example of calculating principal, interest and fee payable upon early repayment using “Rule of 78”:

Further to the above example, assume a borrower has already settled repayment for the 6th month, then requests for full early repayment on or before the 7th monthly repayment due date.

Assume the prepayment fee as: 1% of the outstanding principal amount of the Loan (subject to a minimum prepayment fee of HK\$300) will be charged if the borrower repays the Loan on a Monthly Repayment due date. Repayment must be in full but not partial. Partial Prepayment will not be allowed. Early repayment of the Loan is permissible upon 7 business days' prior written notice thereof having been received by the Bank. The borrower agrees to pay to the Bank the entire outstanding loan principle (including any arrears), outstanding handling fee and interest up to the next repayment date (if applicable) together with all fees and charges due under the Loan in full as at the time of approval.

Repayment distribution schedule is as follows:

Instalment	Repayment Amount (HK\$)	Handling fee (HK\$)	Interest (HK\$)	Principal (HK\$)	Outstanding Principal (HK\$)	Outstanding Interest (HK\$)
0					100,000.00	2,520.00
1	8,543.33	0.00	387.69	8,155.64	91,844.36	2,132.31
2	8,543.33	0.00	355.38	8,187.95	83,656.41	1,776.92
3	8,543.33	0.00	323.08	8,220.26	75,436.15	1,453.85
4	8,543.33	0.00	290.77	8,252.56	67,183.59	1,163.08
5	8,543.33	0.00	258.46	8,284.87	58,898.72	904.62
6	8,543.33	0.00	226.15	8,317.18	50,581.54 ¹	678.46
7	8,543.33 ²	0.00	193.85	8,349.49	42,232.05 ³	484.62
8	8,543.33	0.00	161.54 ⁴	8,381.79	33,850.26	323.08
9	8,543.33	0.00	129.23	8,414.10	25,436.15	193.85
10	8,543.33	0.00	96.92	8,446.41	16,989.74	96.92
11	8,543.33	0.00	64.62	8,478.72	8,511.03	32.31
12	8,543.33	0.00	32.31	8,511.03	0.00	0

*Rounded up or down to the nearest two decimal places

1. Outstanding principal on the 7th monthly repayment due date

= HK\$100,000 – Principal for the 1st month – Principal for the 2nd month – – Principal for the 6th month

= HK\$100,000 – HK\$8,155.64 – HK\$8,187.95 – – HK\$8,317.18

= HK\$50,581.54

Prepayment fee

= Outstanding principal on the 7th monthly repayment due date x 1%

= HK\$50,581.54 x 1%

= HK\$505.82 (As this amount is larger than the minimum prepayment fee of HK\$300, the larger amount of HK\$505.82 is taken)

2. Monthly repayment amount for the 7th monthly repayment due date = HK\$8,543.33

3. Outstanding principal on the 7th monthly repayment due date after monthly repayment
= HK\$100,000 – Principal for the 1st month – Principal for the 2nd month – – Principal for the 7th month
= HK\$100,000 – HK\$8,155.64 – HK\$8,187.95 – – HK\$8,349.49
= HK\$42,232.05

Principal, interest and fee payable
= Monthly repayment amount for the 7th monthly repayment due date + Outstanding principal for the 7th monthly repayment due date after monthly repayment + Prepayment fee
= HK\$8,543.33 + HK\$42,232.05 + HK\$505.82
= HK\$51,281.20

4. Loan interest saved

= Total interest for 8th to 12th instalment
= HK\$161.54 + HK\$129.23 + + HK\$32.31
= HK\$484.62

As illustrated in the above example, taking into account the prepayment fee, the loan interest saved from early repayment by the borrower after the 6th monthly repayment due date may not be enough to cover the prepayment fee of HK\$505.82.

The above example is for reference only. Please refer to the table of outstanding principal amount applicable to your Merchant Receivables Loan. For enquiry, please call our Merchant Sales & Services Section at (852) 3768 8822.