## 計算一般私人貸款提前還款之例子

以 12 個月為貸款期及每月平息 $0.35 \%$ 的 HK $\$ 100,000$ 貸款為例。
平均每月利息 $=\mathrm{HK} \$ 100,000 \times 0.35 \%=\mathrm{HK} \$ 350$
全期利息 $=H K \$ 350 \times 12$（期數）$=$ HK\＄4，200
每月還款金額 $=(H K \$ 100,000+H K \$ 4,200) / 12($ 期數 $)=H K \$ 8,684$
實際年利率 ${ }^{\#}=10.00 \%$（已包括 $1 \%$ 手續費（確認貸款時全數缴付）

提前清還計算細節如下：
＊假設在第 6 期還款日提前還款
（i）未清還的貸款本金及應計利息，兩者均須根據實際月利率按月重新計算或計算至及包括清還當日；及
（ii）就貸款應付之一切其他有關款項，費用，收費，開支及支出；
（iii）由清還貸款翌日起按上述實際月利率計算至下一個每月還款日的利息（首尾兩天包括在內）；及
（iv）相等於原貸款本金之 $3 \%$ 的提早還款手續費。
惟上述方法一（iv）須不少於港幣 1，500 元。

| 算式 | $P V=\sum_{t=1}^{n} \frac{P M T}{(1+r)^{t}}$ | $\mathrm{PV}=$ 貸款額 <br> $\mathrm{PMT}=$ 每月還款額 <br> $\mathrm{t}=$ 期數 <br> $\mathrm{n}=$ 貸款期 <br> $\mathrm{r}=$ 實際月利率 |
| :--- | :--- | :--- |
| 例子 | $\$ 100,000=\sum_{t=1}^{12} \frac{s 8,684}{(1+r)^{t}}$ | 透過算式計算, <br> $\mathrm{r}=0.6399022 \%$ |

## 計算之提前還款金額

實際月利率 $=0.6399022 \%$

提前還款金額如下：

| 期數 | 每月還款 |  | 利息 |  | 償還本金 |  | 末清還本金 |  |  | 提早還款金額（包括每月還款額） |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | \＄ | 100，000．00 |  |  |
| 1 | \＄ | 8，684 | \＄100，000 x 0．6399022\％ | \＄ 639.90 | \＄8，684－\＄639．90 | \＄8，044．10 | \＄100，000－\＄8，044．10 | \＄ | 91，955．90 |  |  |
| 2 | \＄ | 8，684 | \＄91，955．90 x 0．6399022\％ | \＄ 588.43 | \＄8，684－\＄588．43 | \＄8，095．57 | \＄91，955．90－\＄8，095．57 | \＄ | 83，860．33 |  |  |
| 3 | \＄ | 8，684 | \＄83，860．33 x 0．6399022\％ | \＄ 536.62 | \＄8，684－\＄536．62 | \＄8，147．38 | \＄83，860．33－\＄8，147．38 | \＄ | 75，712．95 |  |  |
| 4 | \＄ | 8，684 | \＄75，712．95 x 0．6399022\％ | \＄ 484.49 | \＄8，684－\＄484．49 | \＄8，199．51 | \＄75，712．95－\＄8，199．51 | \＄ | 67，513．44 |  |  |
| 5 | \＄ | 8，684 | \＄67，513．44 x 0．6399022\％ | \＄ 432.02 | \＄8，684－\＄432．02 | \＄8，251．98 | \＄67，513．44－\＄8，251．98 | \＄ | 59，261．46 |  |  |
| 6 | \＄ | 8，684 | \＄59，261．46 X 0．6399022\％ | \＄ 379.22 | \＄8，684－\＄379．22 | \＄8，304．78 | \＄59，261．46－\＄8，304．78 | \＄ | 50，956．68 | \＄50，956．68＋（\＄100，000 $\times 3 \%$ ）＋\＄8，684 | \＄62，640．68 |

\＃實際年利率之計算是根據香港銀行公會標準，並已約至小數後兩個位。實際年利率是一個參考年利率，以年化利率展示包括銀行產品的基本利率及其他適用的費用與收費。
＊因在第 6 期還款日提前還款，每月還款額將包括在提前還款金額之內。

以上例子只供參考。

## OCBC Bank (Hong Kong) Limited

## Example of Early Settlement Calculation of General Unsecured Loan

A 12-month loan of $\mathrm{HK} \$ 100,000$ at a monthly flat rate of $0.35 \%$
Average Monthly Interest = HK\$100,000 x 0.35\% = HK\$350
Interest for the full term $=\mathrm{HK} \$ 350 \times 12$ (instalments) $=\mathrm{HK} \$ 4,200$
Monthly repayment amount $=($ HK $\$ 100,000+$ HK\$4,200 $) / 12($ monthly payments $)=$ HK\$8,684
Annualized Percentage Rate (APR) ${ }^{\#}=10.00 \%$ (including 1\% up-front handling fee)

Early settlement calculation method in total and the details are as follows:

* Assuming the early settlement will be made on the 6th monthly instalment due day
(i) the outstanding principal of the Loan and accrued interest up to the repayment date, both recalculated or calculated at the interest rate of monthly effective rate of the Loan on a monthly basis;
(ii) all other monies, fees, charges, costs and expenses payable under the Loan;
(iii) interest calculated at the aforesaid monthly effective rate for the period commencing from the day after the repayment date to the next monthly instalment payment date (both days inclusive); and
(iv) early repayment handling fee equal to $3 \%$ on the original loan amount.

Provided always that (iv) shall be not less than HK\$1,500.
The monthly effective rate can be solved by the following equation

| Equation | $P V=\sum_{t=1}^{n} \frac{P M T}{(1+r)^{t}}$ | $\mathrm{PV}=$ Loan Amount <br> $\mathrm{PMT}=$ Monthly Instalment Amount <br> $\mathrm{t}=$ No. of Instalment <br> $\mathrm{n}=$ Loan Tenor <br> $\mathrm{r}=$ Monthly Effective Rate |
| :--- | :--- | :--- |
| Example | $\$ 100,000=\sum_{t=1}^{12} \frac{\$ 8,684}{(1+r)^{t}}$ | By solving the equation, <br> $r=0.6399022 \%$ |

## The early settlement amount

Monthly Effective Rate $=0.6399022 \%$
The early settlement amounts are as follows:

| Nth of Instalment | Monthly Instalment | Interest |  | Principal Repaid |  | Outstanding Principal |  |  | Early Settlement Amount with Monthly instalment Amount |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | \$ | 100,000.00 |  |  |
| 1 | \$ 8,684 | \$100,000 X 0.6399022\% | \$ 639.90 | \$8,684-\$639.90 | \$ 8,044.10 | \$100,000-\$8,044.10 | \$ | 91,955.90 |  |  |
| 2 | \$ 8,684 | \$91,955.90 X 0.6399022\% | \$ 588.43 | \$8,684-\$588.43 | \$ 8,095.57 | \$91,955.90-\$8,095.57 | \$ | 83,860.33 |  |  |
| 3 | \$ 8,684 | \$83,860.33 X 0.6399022\% | \$ 536.62 | \$8,684-\$536.62 | \$ 8,147.38 | \$83,860.33-\$8,147.38 | \$ | 75,712.95 |  |  |
| 4 | \$ 8,684 | \$75,712.95 X 0.6399022\% | \$ 484.49 | \$8,684-\$484.49 | \$ 8,199.51 | \$75,712.95-\$8,199.51 | \$ | 67,513.44 |  |  |
| 5 | \$ 8,684 | \$67,513.44 X 0.6399022\% | \$ 432.02 | \$8,684-\$432.02 | \$ 8,251.98 | \$67,513.44-\$8,251.98 | \$ | 59,261.46 |  |  |
| 6 | \$ 8,684 | \$59,261.46 X 0.6399022\% | \$ 379.22 | \$8,684-\$379.22 | \$ 8,304.78 | \$59,261.46-\$8,304.78 | \$ | 50,956.68 | \$50,956.68 + (\$100,000 X 3\%) + \$8,684 | \$62,640.68 |

\# The annualized Percentage Rate ("APR") is calculated according to the standard of Hong Kong Association of Banks and rounded to 2 decimal places. An APR is a reference rate which includes the basic interest rates and other applicable fees and charges of the product expressed as an annualized rate.

* As the early settlement is made on the 6th monthly instalment due day, the corresponding monthly instalment amount will be included in the early settlement amount.

The above example is for reference only.

