

كتاب

# Ch (20) : Short-term financing

## \* Sources of Short term financing

- ① Euro notes : unsecured debt securities with maturity one month, three month, six month, Commercial bank
- ② Euro commercial paper : maturity less than one year, Short term debt instrument s, issued by corporation.
- ③ Direct euro bank : loans in \$ without America.
- ④ Internal fund : loans from parent company and subsidiaries.
- ⑤ Mark ups loans : Short-term, with lowest interest rate from the parent company.

## \* why multinational are consider foreign currency

- ① interest rate lower.
- ② currency exchange higher.

## \* Effective financing rate

- 1. Interest rate
- 2. Exchange rate

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Example: -

① Borrow 1 million NZ at 8% interest rate  
in one year in America?

NZ  $\rightarrow$  \$

NZ  $\rightarrow$  0.5 cent

②  $\rightarrow$  convert NZ to \$

$$1,000,000 \text{ NZ} \times 0.50$$

$= 500,000 \$$

③ Convert at interest rate, after 1 year later.

$$500,000 + (1 + 0.08)$$

$$= 534,000 \$ \text{ NZ}$$

④ Convert NZ \$  $\rightarrow$  NZ = 0.60 \$

$$534,000 \times 0.60$$

$$= 320,400 \$$$

$$\textcircled{5} \quad \frac{320,400 - 500,000}{500,000}$$

$$= -0.3592$$

$$= -35.92\%$$

$$FRA = (1 + P_f)(1 + P_d) - 1$$

Foreign  
interest

Domestic  
rate

$$d = \frac{0.60}{0.50} = 20\% \rightarrow (1 + 8\%)(1 + 20\%) - 1$$

$$= 29.6\%$$

\* criteria considering financing

① interest rate parity

$$P = \frac{1 + i_k}{1 + i_f}$$

$$F = S(1 + p)$$

② forward rate forecasting

③ exchange rate forecasting

$$cf = (1 + i_f) \left[ 1 + \frac{(F - S)}{S} \right] - 1$$

$$E(cf) = (1 + i_f) (1 + E(cf)) - 1$$

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$$\rightarrow r_p = w_1 r_1 + w_2 r_2$$

(return of portfolio)

(weights)

$$\rightarrow \text{Var}(p) = (w_1)^2 (\sigma_1)^2 + (w_2)^2 (\sigma_2)^2 + 2 w_1 w_2 \sigma_1 \sigma_2$$

(variance of portfolio)

example: 50% French

50% Japanese

$\mu = 3\% \rightarrow \text{French} \rightarrow \sigma = 4\%$

$\mu = 2\% \rightarrow \text{Japanese} \rightarrow \sigma = 9\%$

$\rho = 10\%$

weights = 100%

$$\begin{aligned} \textcircled{1} r_p &= (0.50)(0.03) + (0.50)(0.02) \\ &= 0.015 + 0.01 \\ &= 0.025 = \boxed{2.5\%} \end{aligned}$$

$$\begin{aligned} \textcircled{2} \text{Var}(p) &= (0.50)^2 (0.04)^2 + (0.50)^2 (0.09)^2 + 2(0.50)(0.50)(0.04)(0.09)(0.10) \\ &= \boxed{0.002605} \end{aligned}$$