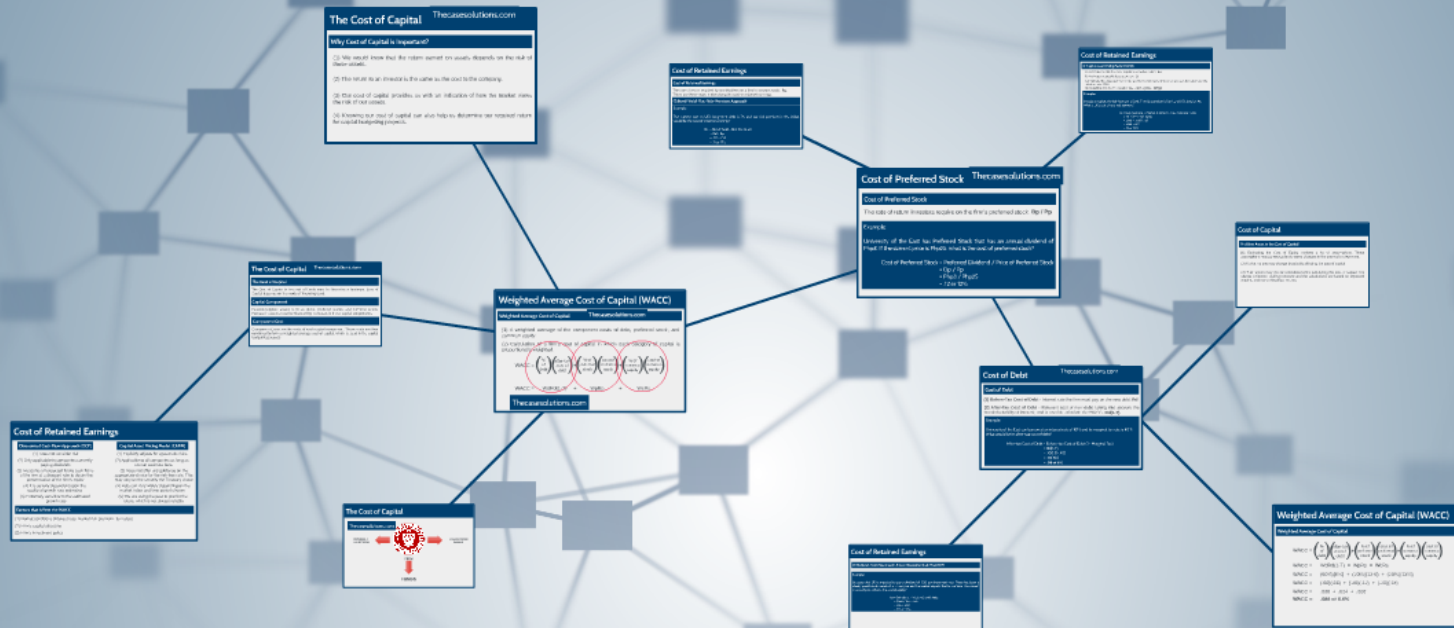
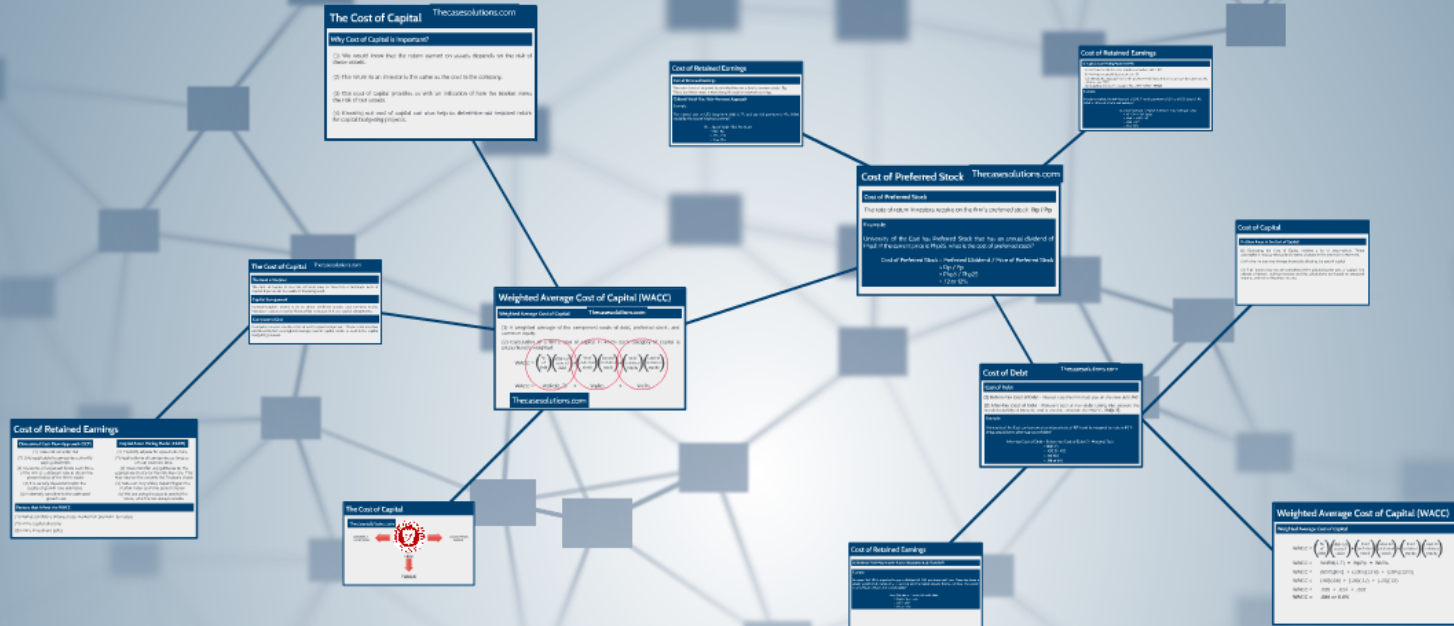


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# The Cost of Capital: Principles and Practice

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# The Cost of Capital: Principles and Practice

# The Cost of Capital

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## The Cost of Capital

The Cost of Capital is the cost of funds used for financing a business. Cost of Capital depends on the mode of financing used.

## Capital Component

Investor-supplied assets such as debts, preferred stocks, and common equity. Increase in assets must be financed by increases in these capital components.

## Component Cost

Component Costs are the costs of each capital component. These costs are then combined to form a weighted average cost of capital, which is used in the capital budgeting process.

# The Cost of Capital

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## Why Cost of Capital is Important?

- (1) We would know that the return earned on assets depends on the risk of those assets.
- (2) The return to an investor is the same as the cost to the company.
- (3) Our cost of capital provides us with an indication of how the market views the risk of our assets.
- (4) Knowing our cost of capital can also help us determine our required return for capital budgeting projects.

# The Cost of Capital

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OWNERS /  
INVESTORS



LOANS FROM  
BANKS

FIRM



FUNDS

# Weighted Average Cost of Capital (WACC)

Weighted Average Cost of Capital

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- (1) A weighted average of the component costs of debt, preferred stock, and common equity.
- (2) Calculation of a firm's cost of capital in which each category of capital is proportionally weighted.

$$\text{WACC} = \left( \begin{array}{c} \% \\ \text{of} \\ \text{debt} \end{array} \right) \left( \begin{array}{c} \text{after-tax} \\ \text{cost of} \\ \text{debt} \end{array} \right) + \left( \begin{array}{c} \% \text{ of} \\ \text{preferred} \\ \text{stock} \end{array} \right) \left( \begin{array}{c} \text{cost of} \\ \text{preferred} \\ \text{stock} \end{array} \right) + \left( \begin{array}{c} \% \text{ of} \\ \text{common} \\ \text{equity} \end{array} \right) \left( \begin{array}{c} \text{cost of} \\ \text{common} \\ \text{equity} \end{array} \right)$$

$$\text{WACC} = W_d R_d (1-T) + W_p R_p + W_c R_s$$

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# Cost of Debt

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## Cost of Debt

**(1) Before-Tax Cost of Debt** - Interest rate the firm must pay on the new debt.  $R_d$

**(2) After-Tax Cost of Debt** - Relevant cost of new debt, taking into account the tax deductibility of interest, and is used to calculate the WACC.  $R_d(1-T)$

Example:

University of the East can borrow at an interest rate of 10% and its marginal tax rate is 40%. What would be its after-tax cost of debt?

$$\begin{aligned}\text{After-tax Cost of Debt} &= \text{Before-tax Cost of Debt} (1 - \text{Marginal Tax}) \\ &= R_d(1-T) \\ &= .10(1.0-.40) \\ &= .10(.60) \\ &= .06 \text{ or } 6\%\end{aligned}$$

# Weighted Average Cost of Capital (WACC)

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$$\text{WACC} = W_d R_d (1-T) + W_p R_p + W_c R_s$$

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# Cost of Preferred Stock

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## Cost of Preferred Stock

The rate of return investors require on the firm's preferred stock.  $D_p / P_p$

Example:

University of the East has Preferred Stock that has an annual dividend of Php3. If the current price is Php25, what is the cost of preferred stock?

$$\begin{aligned}\text{Cost of Preferred Stock} &= \text{Preferred Dividend} / \text{Price of Preferred Stock} \\ &= D_p / P_p \\ &= \text{Php3} / \text{Php25} \\ &= .12 \text{ or } 12\%\end{aligned}$$