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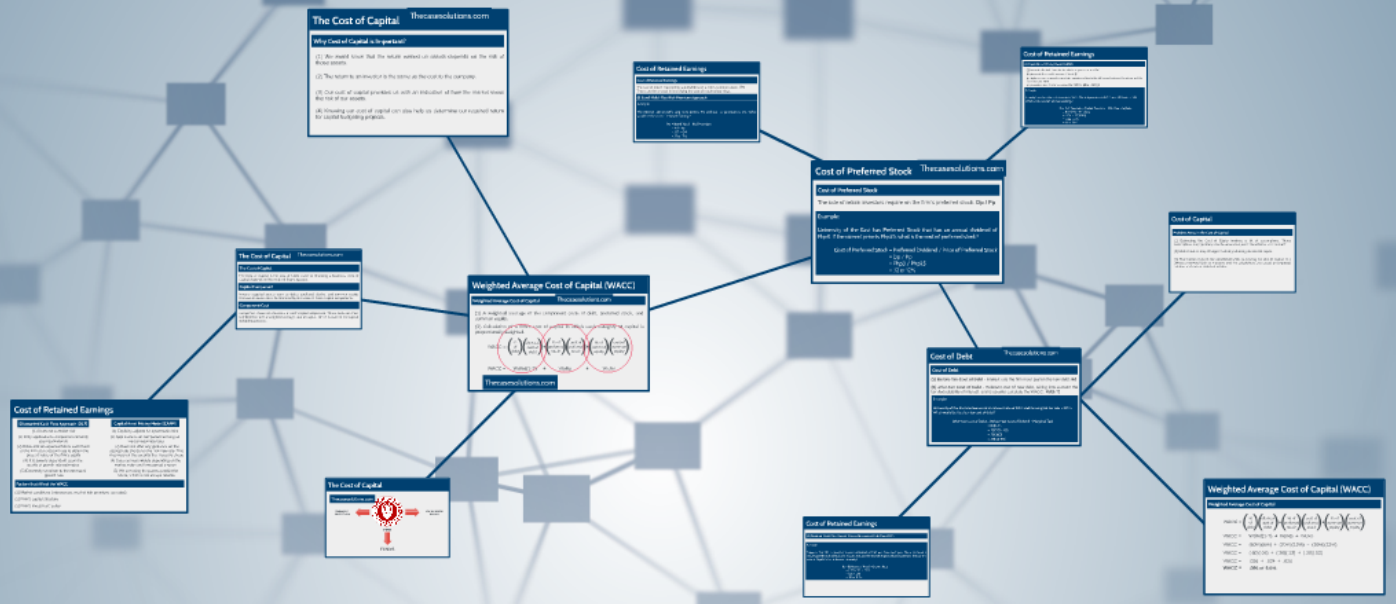

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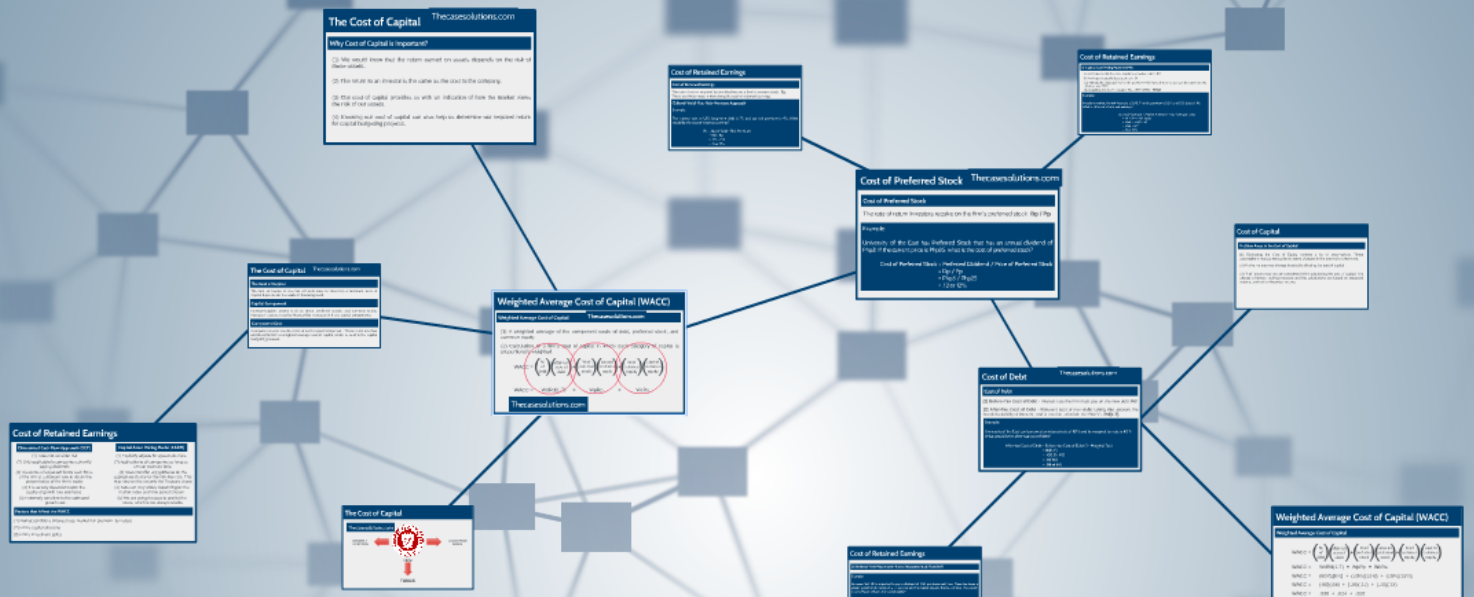

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The Cost of Capital

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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, preffered 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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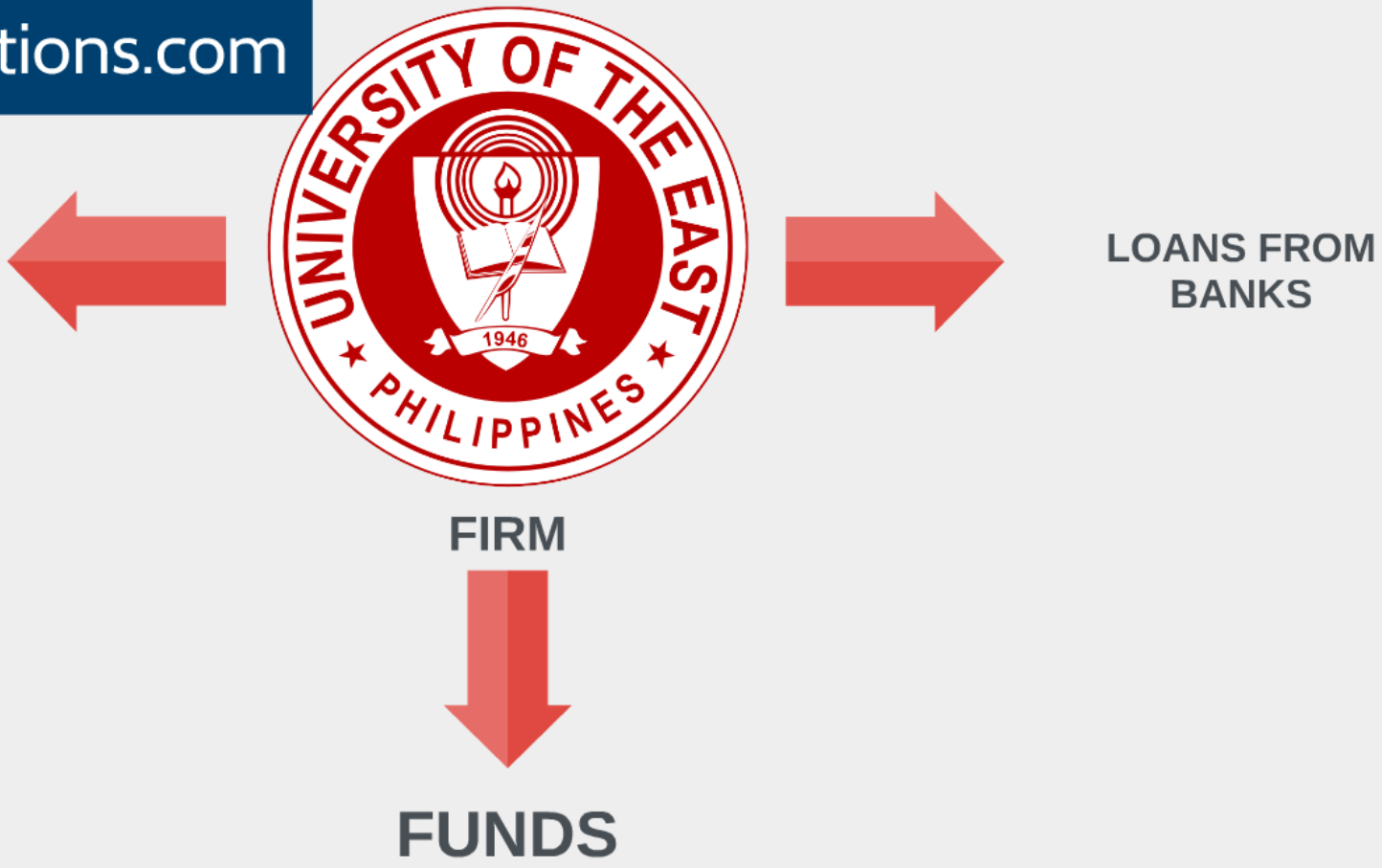

Weighted Average Cost of Capital (WACC)

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.

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

$$WACC = WdRd(1-T) + WpRp + WcRs$$

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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. **Rd**

(2) After-Tax Cost of Debt - Relevant cost of new debt, taking into account the tax deductability of interest, and is used to calculate the WACC. **Rd(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?

After-tax Cost of Debt = Before-tax Cost of Debt (1 - Marginal Tax)
= Rd(1-T)
= .10(1.0-.40)
= .10(.60)
= .06 or 6%

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$$WACC = WdRd(1-T) + WpRp + WcRs$$

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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. **Dp / Pp**

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?

Cost of Preferred Stock = Preferred Dividend / Price of Preferred Stock
= Dp / Pp
= Php3 / Php25
= .12 or 12%