

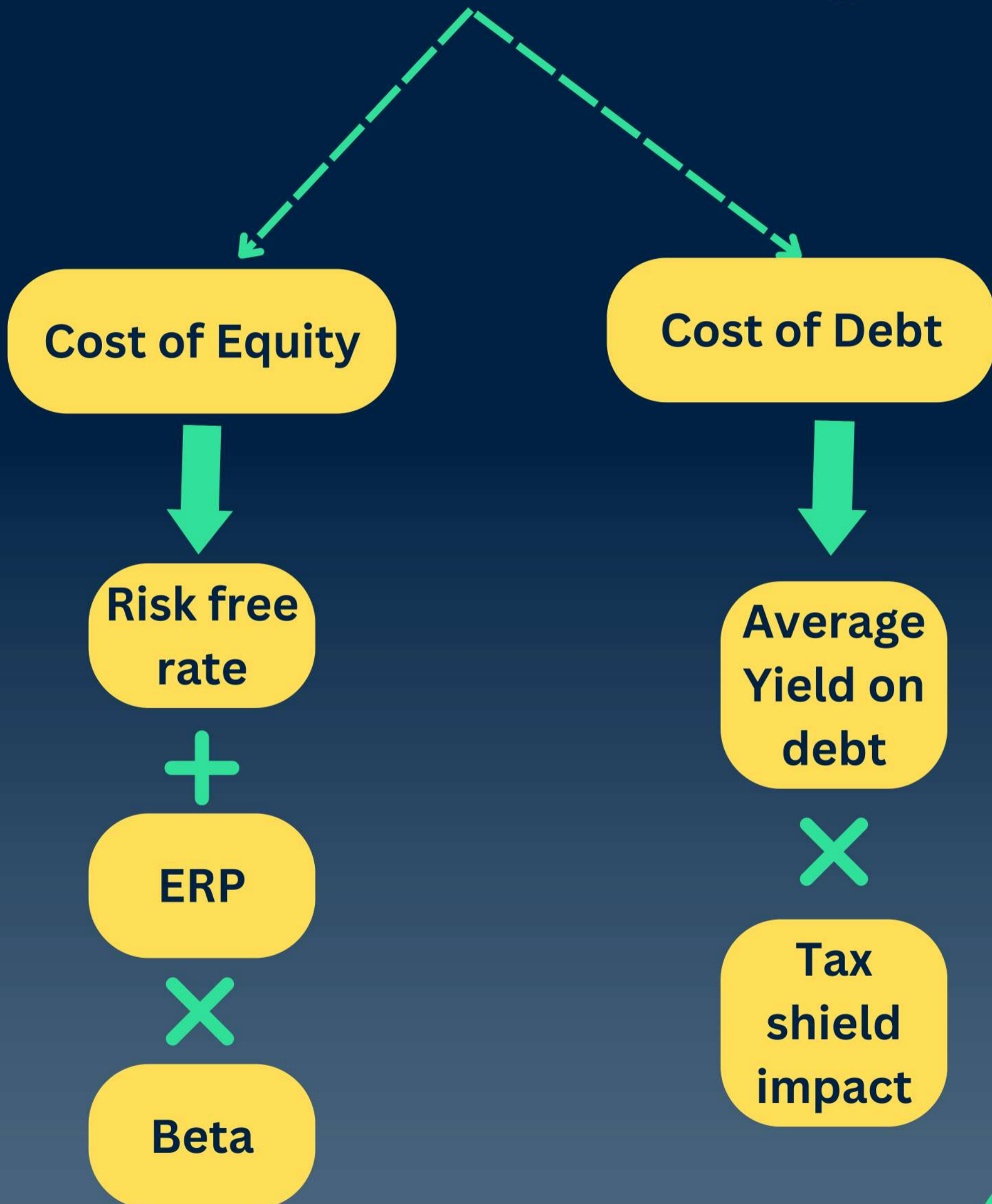
Computation of WACC



W Weighted
A Average
C Cost of
C Capital



Summary



Cost of Equity

The cost of equity represents the **return required by investors in order to hold shares of a company's stock.**

It is an important metric used in financial valuation and investment analysis.

There are various methods to compute the cost of equity, but one commonly used approach is the **Capital Asset Pricing Model (CAPM).**

Here's how you can compute the cost of equity using CAPM:



Step 1 : Risk-free rate

Determine the Risk-Free Rate: Start by identifying the risk-free rate, which represents the return an investor would expect from a risk-free investment such as government bonds. This rate serves as a baseline return for the overall market.

You can obtain this rate from reliable sources like government treasury yields.

Source: www.ccilindia.com



Step 2 : Equity Risk Premium

The equity risk premium reflects the **additional return that investors demand for investing in equities** instead of risk-free investments.

It **compensates for the higher risk** associated with owning stocks.

The equity risk premium can vary based on **market conditions, country-specific factors, and other considerations.**

Source: <https://pages.stern.nyu.edu/~adamodar>



Step 3 : Beta

Beta measures the **sensitivity** of a stock's **returns to the overall market movements**.

It indicates how much the stock's price tends to move in relation to the broader market.

Beta = Covariance (Stock Returns, Market Returns) / Variance (Market Returns)

Source: Bloomberg or Yahoo Finance

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Step 4 : Calculate the Cost of Equity

Once you have the risk-free rate, the equity risk premium, and the beta of the stock, you can use the CAPM formula to calculate the cost of equity:

$$\text{Cost of Equity} = \text{Risk-Free Rate} + (\text{Beta} \times \text{Equity Risk Premium})$$



Cost of Debt

The cost of debt represents the **required return** for a company's debt holders.

It is the **interest rate or yields** the company must **pay on its debt to compensate** lenders for the risk associated with lending money.

Cost of Debt =
Average Yield on debt × (1 - Tax rate)

Source: www.fimmda.org



WACC

To compute the Weighted Average Cost of Capital (WACC), you need to consider the cost of each component of a company's capital structure, **weighted by their respective proportions.**

Here's how you can calculate the WACC:

$WACC = (\text{Proportion of Debt} \times \text{Cost of Debt}) + (\text{Proportion of Equity} \times \text{Cost of Equity})$