

DECISION MAKING AND SCENARIOS

MODULE 1.5 – Why Is Net Present Value Appropriate for Evaluating Projects?

The Cost of Capital

Professor Robert Holthausen
Professor Richard Lambert



Nominal Cost of Capital

- The discount rate represents the opportunity cost of capital
- A nominal cost of capital incorporates
 - The return investors would demand on a riskless asset without inflation
 - Compensation for expected inflation
 - A risk premium for the risk of the project
- It is a measure that incorporates the cost of financing across all the components of the company's capital structure – debt, common equity and preferred equity, etc.

Nominal Cost of Capital

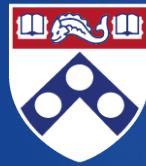
- We must be consistent in our treatment of inflation
 - Cash flows and discount rates must both be in either nominal or real terms.
- Generally it is best to work in nominal terms. What does that mean?
 - The discount rate includes compensation for expected inflation (increases in expected inflation increase the discount rate).
 - The cash flow forecasts reflect the purchasing power of the currency in future years (in other words, for a company selling the same number of units of a product every year, we would expect revenues to generally increase because of the decline in the purchasing power of the currency which we would expect would cause the price per unit to increase).

Nominal Cost of Capital

- Who Estimates the Cost of Capital for a Company?
 - Generally the cost of capital is determined by someone in the finance function within a company, such as the CFO, a controller or someone in the treasury function
 - Line managers who advance projects for approval generally do not determine the cost of capital
- In companies where the finance function is reasonably sophisticated, different kinds of projects may have different costs of capital because of varying risks
 - Costs of capital may vary across divisions
 - Costs of capital may be a function of the risk due to the type of project – consider a machine replacement project with well known technology against a project where we are developing a new product

Summary

- We have discussed why net present value analysis is the appropriate criteria for choosing whether to accept or reject a project
 - We have also seen why other criterion, such as IRR, payback, ROI, etc. may not lead to decisions which maximize value
- We have discussed the time value of money and the cost of capital which are two key components of net present value
- In the second module, we discuss the details of how to evaluate a project with emphasis on analyzing the incremental after-tax cash flows associated with the project



Wharton
UNIVERSITY *of* PENNSYLVANIA



Wharton
UNIVERSITY *of* PENNSYLVANIA

ONLINE