BUSINESS ECONOMICS

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Chapter 7:

INVESTMENT APPRAISAL

- Required: ***Business Economics and Managerial Decision Making***,C.12

STRUCTURE

1. **Basic steps**

2. Discounting methods

3. Non-discounting methods

4. **Cost of capital**

1. Basic steps

a. Objectives

b. Options

c. Costs, benefits, timing & uncertainties

d. Method of appraisal

e. Cost of capital

f. Test of viability

g. Results

1. Basic steps

a. Objectives

+ Replacement investment

+ Expansionary investment

+ Other investments

b. Options

1. Basic steps

c. Costs, benefits, timing & un.

+ Costs, revenues

+ Likelihood of different conditions

+ Length of time

1. Basic steps

d. Method

+ ***Discounting:*** NPV, IRR, Discounted payback period

+ ***Non-discounting:*** Payback period, Accounting rate of return

1. Basic steps

e. Cost of capital

f. Test of viability

g. Results

2. Discounting methods

- Net present value (NPV)

- Internal rate of return (IRR)

- Discounted payback period

3. Non discounting methods

- Payback period method

- Accounting rate of return

4. Cost of capital

4.1 Sources of funds

4.2 Total cost of capital

4.1 Sources of funds

Internal vs. External

- Internal: retained profits, depre.

- External: debt, equity

4.2 Total cost of capital

a. Cost of internal funds: R_I

b. Cost of debt: R_D

c. Cost of equity: R_E

→ WACC

4.2 Total cost of capital

b. Cost of debt: $R_D = r(1-t)$

r: interest paid

t: marginal tax rate

4.2 Total cost of capital

c. Cost of equity:

- CAPM: $R_E = R_F + \beta(R_M - R_F)$

R_E: Risk-adjusted rate

R_F: Risk-free rate

R_M: Expected return on a portfolio of assets

β → *Movement of a project's returns in line with market's*

4.2 Total cost of capital

c. Cost of equity:

- Dividend valuation model:

$$PV = \sum_{t=1}^{n} D_t /(1+r)^t$$

D_t: Dividend per share per year

r: Discount rate

4.2 Total cost of capital

→ *Weighted average cost of capital*

$$R_T = W_I R_I + W_D R_D + W_E R_E$$