Cash Flow Forecasting

- The most important, but also the most difficult, step in capital budgeting is estimating projects cash flows

  The investment outlays and the annual net cash inflows after a project goes into operations

- Relevant cash flows

  The specific cash flows that should be considered in a capital budgeting decisions, rule:

  1. capital budgeting decisions must be based on cash flows, not accounting income.

  2. only incremental cash flows are relevant. Costs that occur iff we accept the project.



Cash Flow Forecasting

- Annuity
  - Constant stream of payment
  - Lease, rent, etc
- Random
  - Construction business for contractors is expected to be increasing
  - Individual contract amount takes the form of the S-curve

The cash flows typically include the following items:

1. Initial investment outlay
2. Operating cash flows over the project’s life
3. Terminal year cash flows.



4.3 Capital Budgeting on Contract Investment

- Cash flows of a construction company occur as a result of the contractual and credit arrangements existing on a series of contracts within any trading period.
- Sources of finance on contracts:
  - Internal Sources
    - -generated from the companies operation
    - -most of they are locked up b/c:
      - Stage payment
      - disagreement
  - External Sources
    - -from lenders based on interest



4.3.1 Establishing ROCE and Mark up in Corporate Budget Planning

- The two parameters that affect a construction company's profitability:
  1. The company’s ROCE
  2. The mark up on contract costs to achieve the desired ROCE

To determine firm’s mark-up target, it is required establish:

- Successful measurement of profitability
- Starting parameter for budgeting and performance measurement
- Determine at the head office level
- Collected form cash flow of individual contract through inclusion of mark-up



- ROCE is made to account for the following costs:
  - The average weight cost of capital (interest of capital employed)
  - Profit margin (dividends, capital reserves…)
  - Corporate obligations such as taxations and depreciation costs
  - Contingencies to cover uncertain (risks)

ii. Annual Turnover on contracts,

This can be obtained form the firms, short term plan committed or planned for execution in the current year



iii. General over head costs (off-site adminstration)

- One of the items in the Mark-up
- Costs entitled in administrating the company and providing off-site services.
- The amount of GOC for individual project is decided by management as part of their policy.
- Vary with individual firms, but broadly includes (within a company's accounts)
  - Rent on office and yard.
  - Fees, salaries and waged for directors and office staff
  - Office supplement, stationary, telephones, cars
  - Office heating and lighting
  - Insurance on office staff

  Estimated as the percentage of expected turnover.



Steps to reach at company's Mark-up

- Step 1. Estimate total capital to be employed for the fiscal year (TCE)
  - estimated from the balance sheet of the company

Asset	Liability
Current Assets Cash Marketable securities Account Receivables Inventories Other current assets… **Fixed Assets** Building Machineries Equipments Others	**Current Liabilities** Short term loans Account payable Accrued income taxes Current payments due on long-term dept Other current liabilities…



Steps to reach at company's Mark-up (cont'd)

- Step 2 Determine ROCE as the percentage of the TCE.
  - Average weighted cost of capital (interest of capital employed) …….***%TCE
  - Profit margin (dividends and reserves) …… ***%TCE
  - Corporate obligations (tax, depreciation)……***%TCE
  - Contingencies to cover uncertainties (tax)…… ***%TCE

  ROCE ……∑***%TCE

  Step3 Estimate expected turnover for the fiscal year

  - this can be obtained

  -from the firm's short-term plan committed, or

  - plan for execution in the current year



- Step4 Detemine the general overheard cost (GOC)
  - Estimated as the percentage of the annual turnover
  - Based on the previous year's turnover
  - GOC ..... ****%turn over
- Step5 determine the mark up
  - Mark up (hear office) = GOC + ROCE
- Step6 determine the total production cost (TPC)

  ∑production cost = turnover – Mark up
- Step7 determine markup individual project
  - $$\text{Mark-up at individual project} = \frac{\text{Mark up}}{\text{TPC}} * 100\%$$



The following is the balance sheet of G.C. 1 contractor

Assets (in M birr)	Liabilities +capital (in M birr)
Current Assets 45	Loan 47
Fixed Assets 62	Pereferred share 15
	Retained earnings 10
	Share capital (common share)35
Total Asset 107	Total Liabilities & capital 107



- 40% of the loan is due with 1 year
- ROCE of the company last year was 20% they expect the same ROCE this year
- This year they want to increase their Turnover by 25% last year their turnover was birr 350,000,000
- The previous year Administration expense was birr 35,000,000
- a) Estimate the mark up of the company
- b) The company is invited to tender for contract of mixed use building with a direct cost of Birr 30,000,000 & estimated site overhead of 12% what will be the minimum amount of the contract price that will be offered by the procurement committee?

