Ch. 14 Multinational Capital Budgeting

Topics
- Capital Budgeting
- Multinational Capital Budgeting
- Factors in Multinational Capital Budgeting
- Adjusting Project Assessment for Risk

Capital Budgeting
- Estimating NPV:
  1. Estimate initial costs.
  2. Estimate future cash flows: how much? and when?
  3. Estimate discount rate.
- Minimum Acceptance Criteria: Accept if NPV > 0.
- Reinvestment assumption: NPV rule assumes that all cash flows can be reinvested at the discount rate.
- Estimating IRR: Discount that sets NPV to zero.
  - Minimum Acceptance Criteria: Accept if the IRR exceeds the required return.
  - Reinvestment assumption: All future cash flows assumed reinvested at the IRR.

Subsidiary vs. Parent Perspective
- Should the capital budgeting for a multi-national project be conducted from the viewpoint of the subsidiary that will administer the project, or the parent that will provide most of the financing?
- The results may vary with the perspective taken because the net after-tax cash inflows to the parent can differ substantially from those to the subsidiary.
Subsidiary vs. Parent Perspective

- Such differences can be due to:
  - Tax differentials
  - Regulations that restrict remittances
  - Excessive remittances
    - The parent may charge its subsidiary very high administrative fees.
  - Exchange rate movements

Remitting Subsidiary Earnings to the Parent

- Conversion of Funds to Parent’s Currency
- Cash Flows to Parent
- Cash Flows Generated by Subsidiary
- Corporate Taxes Paid to Host Government
- After-Tax Cash Flows to Subsidiary
- Retained Earnings by Subsidiary
- Cash Flows Remitted by Subsidiary
- Withholding Tax Paid to Host Government
- After-Tax Cash Flows Remitted by Subsidiary

Major Input Variables

1. Initial investment
2. Consumer demand
3. Product price
4. Variable cost
5. Fixed cost
6. Project lifetime
7. Salvage (liquidation) value
8. Fund-transfer restrictions
9. Tax laws
10. Exchange rates
11. Required rate of return
Factors to Consider
- Exchange Rate Fluctuations
- Inflation
- Financing Arrangement
- Blocked Funds
- Uncertain Salvage Value
- Impact of Project on Prevailing Cash Flows
- Host Government Incentives
- Probability of a Host Government Takeover

Adjusting Project Assessment for Risk
1. Use risk-adjusted discount rate: The greater the uncertainty, the larger the discount rate that is applied.
2. Apply sensitivity/scenario analysis and simulation: Develop a range of possible values that each input variable is desirable to develop a distribution of possible NPVs in order to assess the probability that NPV will be positive.

Capital Budgeting and MNC’s Value

\[
\text{Value} = \sum_{t=1}^{n} \left( \sum_{j=1}^{m} \frac{E(CF_{j,t}) \times E(ER_{j,t})}{(1 + k)^t} \right)
\]

- \(E(CF_{j,t})\) = expected cash flows in currency \(j\) to be received by the U.S. parent at the end of period \(t\)
- \(E(ER_{j,t})\) = expected exchange rate at which currency \(j\) can be converted to dollars at the end of period \(t\)
- \(k\) = weighted average cost of capital of the parent