### Ch. 18 Multinational Capital Budgeting

Capital Budgeting

**Topics** 

- Multinational Capital Budgeting
  - Complexities of a Foreign Project
  - Factors in Multinational Capital Budgeting
  - Adjusting for Risk

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# **Multinational Capital Budgeting**



- Like domestic capital budgeting, multinational capital budgeting focuses on the cash inflows and outflows associated with prospective long-term investment projects.
- Multinational capital budgeting follows same framework as domestic capital budgeting.
  - Identify initial capital invested or put at risk
  - Estimate cash inflows, including a terminal value or salvage value of investment
  - Identify appropriate discount rate for PV calculation
  - Apply traditional NPV or IRR analysis

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# **Capital Budgeting Review**



- 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.

### **Multinational Capital Budgeting**

- Subsidiary versus Parent Perspective
  - Tax Differentials
  - Restricted Remittances
  - Excessive Remittances
  - Exchange Rate Movements

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### **Complexities of a Foreign Project**

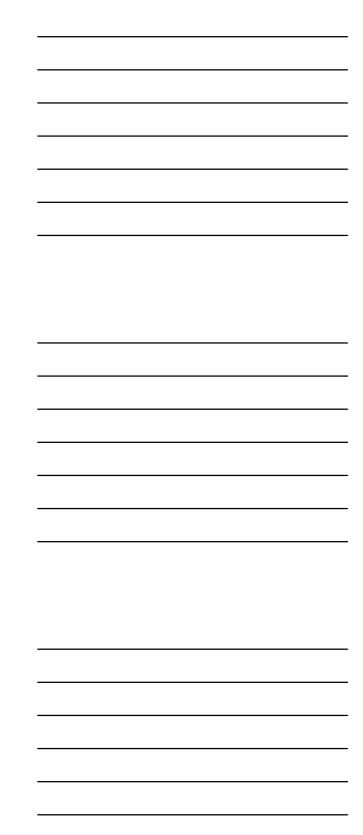


- 2. Parent cash flows often depend on the form of financing, thus cannot clearly separate cash flows from financing.
- Additional cash flows from new investment may in part or in whole take away from another subsidiary; thus as stand alone may provide cash flows but overall adds no value to entire organization.
- Parent must recognize remittances from foreign investment because of differing tax systems, legal and political constraints.
- 5. Managers must evaluate political risk.

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# Complexities of a Foreign Project

- An array of non-financial payments can generate cash flows to parent in form of licensing fees, royalty payments, etc.
- 7. Managers must anticipate differing rates of national inflation which can affect differing cash flows.
- 8. Use of segmented national capital markets may create opportunity for financial gain or additional costs.
- 9. Use of host government subsidies complicates capital structure and parent's ability to determine appropriate WACC.
- 10. Terminal value is more difficult to estimate because potential purchasers have widely divergent views.



### **Major Input Variables**

- Initial investment
- Consumer demand
- Product price
- Variable cost
- Fixed cost
- Project lifetime
- Salvage (liquidation) value
- Fund-transfer restrictions
- Tax laws
- Exchange rates
- Required rate of return

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### **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

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# **Adjusting Project Assessment for Risk**



- If an MNE is unsure of the cash flows of a proposed project, it needs to adjust its assessment for this risk.
- Use risk-adjusted discount rate: The greater the uncertainty, the larger the discount rate that is applied.
- Apply sensitivity/scenario analysis and simulation: Develop a range of possible values that each input variable desirable to develop a distribution of possible NPVs in order to assess the probability that NPV will be positive.