Project Cash Flows and Risk

1. Relevant cash flows (marginal, or incremental cash flows)—only those that are affected (changed) by the decision

2. Identifying relevant cash flows
   a. Sunk cost—not relevant
   b. Opportunity costs—relevant
   c. Externalities—not relevant, but must be identified
   d. Shipping and installation—part of depreciable basis
   e. Inflation—incorporate in cash flows, but not in the required rate of return
Project Cash Flows and Risk

3. Relevant (incremental) cash flows
   a. Initial investment outlay—occur only at the beginning of the life of the project.
   b. Supplemental operating cash flows—occur throughout the life of the project.
   c. Terminal cash flows—occur only at the end of the life of the project.

4. Expansion analysis—relevant cash flows primarily are those associated with the project itself.

5. Replacement analysis—relevant cash flows = the difference between cash flows that would exist if the asset is not replaced and the cash flows that will exist with the replacement project.
6. Incorporating risk
   a. Stand-alone risk—evaluate the total risk of project, not considering the effect it will have on other assets.
      i. Sensitivity analysis—change inputs to determine the effect on the result.
      ii. Scenario analysis—evaluate different scenarios (situations).
      iii. Monte Carlo simulation—simulate the real world as much as possible
   b. Corporate (within-firm) risk—examine how adding the project to existing assets will change the firm’s earnings variability.
   c. Beta (market) risk—evaluate how adding the project will affect the portfolios of well-diversified investors who hold the company’s stock.
Project Cash Flows and Risk

7. How is project risk considered?
   a. Firms generally classify projects’ risks as (a) average, (b) above-average, or (c) below-average.
   b. The firm’s required rate of return is used to evaluate average-risk projects.
   c. The firm’s required rate of return is increased by a few percentage points when above-average-risk projects are evaluated.
   d. The firm’s required rate of return is decreased by a few percentage points when below-average-risk projects are evaluated.
Project Cash Flows and Risk

7. Multinational capital budgeting
   a. Repatriation of earnings—sending cash to parent company
   b. Exchange rate risk—uncertainty in converting money from one the currency of one country into the currency of another country.
   c. Political risk—risk of property seizure by a foreign government (expropriation) or other actions that restrict movement of cash flows to other countries