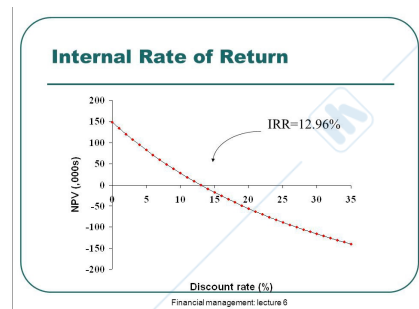


**Capital Budgeting** --> refers to the process in which a business decides if long-run asset are worth pursuing

Different methods

- **NPV** --> Present value of cash flows minus initial investments
  - Accept positive NPV projects (that means receive their NPV in cash today)
  - Reject negative NPV projects (accepting them would reduce the value of the company)
  - Between project the one with the high NPV is picked
- **Payback Rule** --> Payback is the length of time a project takes to recover the initial investments
  - The opportunity that pays back the initial investments quickly is the best idea
  - A project is accepted if the calculated payback period is less than some required period of time (the target period of time is set by the firm)
  - Usually small localised firm use the payback rule
    - **DISADVANTAGES**
      - No discounting --> time value of money is ignored
      - No risk factor --> risky and safe project are considered equal
      - not necessarily related to the goal of the company
- **Discounted Payback Rule** --> Solve the time value problem
  - Rule: the length of time required for an investment's discounted cash inflows to equal or exceed the initial cost of the investments
- **IRR** --> Discount rate that will equate the PV of expected cash outflows to the PV of the cash inflows. IRR makes the NPV equal to ZERO. the firm should equally willing to accept or reject the project if the discount rate is IRR.
  - If the discount rate is lower than the IRR, accept the project
  - If the discount rate is greater than the IRR, reject
    - **WEAKNESS OF IRR**
      - IRR ignored the size of the returns in pounds
      - it may give a higher rate of return on smaller size investments as compared to a larger size investments but does not consider the larger size of return from the larger investments
      - IRR does not take timing of the cash flows into consideration in project with different lives
      - Project with larger cash inflows at a later stage will provide lower IRR than projects with larger cash inflows at an earlier stage but the NPV will be higher for the project with larger cash inflows at a later stage than the project with the cash inflows at an earlier stage



| Year:            | 0        | 1        | 2       | 3        | IRR    | NPV at 7% |
|------------------|----------|----------|---------|----------|--------|-----------|
| Initial proposal | -350,000 | +400,000 |         |          | 14.29% | +\$23,832 |
| Revised proposal | -375,000 | +25,000  | +25,000 | +475,000 | 12.56% | +\$57,942 |

Borrowing projects have a POSITIVE cash inflows followed by NEGATIVE cash outflows. An high IRR is not convenient in these cases because it will mean that you will pay an higher rate on the money borrowed.

