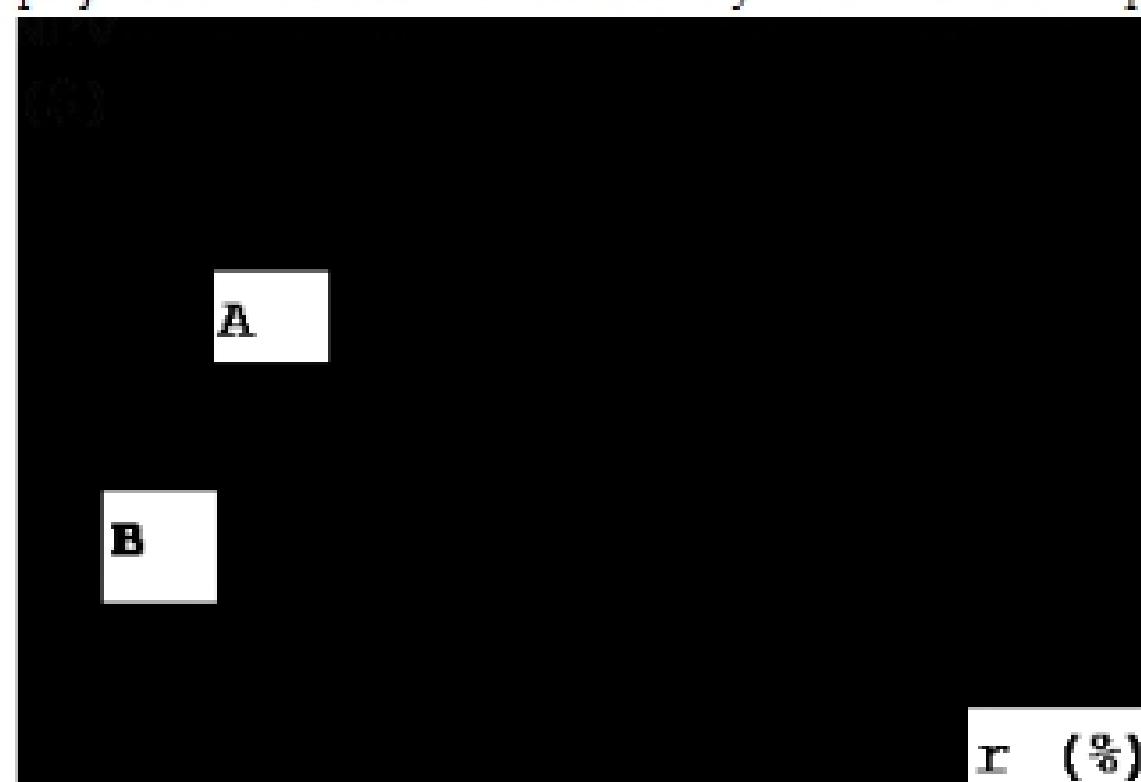


1. Which of the following statements is CORRECT?

- a. The internal rate of return method (IRR) is generally regarded by academics as being the best single method for evaluating capital budgeting projects.
- b. The payback method is generally regarded by academics as being the best single method for evaluating capital budgeting projects.
- c. The discounted payback method is generally regarded by academics as being the best single method for evaluating capital budgeting projects.
- d. The net present value method (NPV) is generally regarded by academics as being the best single method for evaluating capital budgeting projects.
- e. The modified internal rate of return method (MIRR) is generally regarded by academics as being the best single method for evaluating capital budgeting projects.

Answer is d (NPV is regarded as the best method in evaluating capital budgeting projects).

2. Projects A and B have identical expected lives and identical initial cash outflows (costs). However, most of one project's cash flows come in the early years, while most of the other project's cash flows occur in the later years. The two NPV profiles are given below:



Which of the following statements is CORRECT?

- a. More of Project A's cash flows occur in the later years.
- b. More of Project B's cash flows occur in the later years.
- c. We must have information on the cost of capital in order to determine which project has the larger early cash flows.
- d. The NPV profile graph is inconsistent with the statement made in the problem.
- e. The crossover rate, i.e., the rate at which Projects A and B have the same NPV, is

Answer is a. More of Project A's cash flows occur in the later years.

3. Suppose a firm relies exclusively on the payback method when making capital budgeting decisions, and it sets a 4-year payback regardless of economic conditions. Other things held constant, which of the following statements is most likely to be true?

- a. It will accept too many short-term projects and reject too many long-term projects (as judged by the NPV).
- b. It will accept too many long-term projects and reject too many short-term projects (as judged

by the NPV).

- c. The firm will accept too many projects in all economic states because a 4-year payback is too low.
- d. The firm will accept too few projects in all economic states because a 4-year payback is too high.
- e. If the 4-year payback results in accepting just the right set of projects under average economic conditions, then this payback will result in too few long-term projects when the economy is weak.

Answer is e. If the 4-year payback results in accepting just the right set of projects under average economic conditions, then this payback will result in too few long-term projects when the economy is weak.

4. You are on the staff of Camden Inc. The CFO believes project acceptance should be based on the NPV, but Steve Camden, the president, insists that no project should be accepted unless its IRR exceeds the project's risk-adjusted WACC. Now you must make a recommendation on a project that has a cost of \$15,000 and two cash flows: \$110,000 at the end of Year 1 and - \$100,000 at the end of Year 2. The president and the CFO both agree that the appropriate WACC for this project is 10%. At 10%, the NPV is \$2,355.37, but you find two IRRs, one at 6.33% and one at 527%, and a MIRR of 11.32%. Which of the following statements best describes your optimal recommendation, i.e., the analysis and recommendation that is best for the company and least likely to get you in trouble with either the CFO or the president?

- a. You should recommend that the project be rejected because its NPV is negative and its IRR is less than the WACC.
- b. You should recommend that the project be rejected because, although its NPV is positive, it has an IRR that is less than the WACC.
- c. You should recommend that the project be accepted because (1) its NPV is positive and (2) although it has two IRRs, in this case it would be better to focus on the MIRR, which exceeds the WACC. You should explain this to the president and tell him that the firm's value will increase if the project is accepted.
- d. You should recommend that the project be rejected. Although its NPV is positive it has two IRRs, one of which is less than the WACC, which indicates that the firm's value will decline if the project is accepted.
- e. You should recommend that the project be rejected because, although its NPV is positive, its MIRR is less than the WACC, and that indicates that the firm's value will decline if it is accepted.

Answer is c You should recommend that the project be accepted because (1) its NPV is positive and (2) although it has two IRRs, in this case it would be better to focus on the MIRR, which exceeds the WACC. You should explain this to the president and tell him that the firm's value will increase if the project is accepted.

5. A firm is considering Projects S and L, whose cash flows are shown below. These projects are mutually exclusive, equally risky, and not repeatable. The CEO wants to use the IRR criterion, while the CFO favors the NPV method. You were hired to advise the firm on the best procedure. If the wrong decision criterion is used, how much potential value would the firm lose?

WACC: 6.00%

Year 0 1 2 3 4

CFS -\$1,025 \$380 \$380 \$380 \$380

CFL -\$2,150 \$765 \$765 \$765 \$765

a. \$188.68

b. \$198.61

c. \$209.07

d. \$219.52

e. \$230.49

Answer is c: \$209.07