

Chapter 8

1) What is the payback period for the following set of cash flows?

Year	Cash Flow
0	-7800
1	3100
2	3200
3	2200
4	1400

2) A firm evaluates all of its projects by applying the IRR rule. If the required rate of return is 11%, should the firm accept the following project?

Year	Cash Flow
0	-157,000
1	74,000
2	87,000
3	46,000

3) For the cash flows in the previous problem. Suppose the firm uses the PV decision rule. At the required rate of return of 9%, should the firm accept this project? What if the required rate of return was 21%?

4) A Project that provides annual cashflow \$2620.00 for eight years. Cost \$9430 today. Is this a good project? If the required rate of return is 8%? What if it's 24%? At what discount rate would you be indifferent between accepting the project and rejecting it?

5) What is the profitability index for the following set of cash flows? If the relevant discount rate is 10%? What if the discount rate is 15%? If it is 22%?

Year	Cash Flow
0	-29,000
1	16,900
2	13,600
3	8,300

6) The Windwards Corporation is trying to choose between the following two mutually exclusive projects:

Year	CF(I)	CF(II)
0	-84,000	-29,800
1	30,600	10,500
2	36,900	17,400
3	43,700	15,600

6a) If the required rate of return is 11% and the company applies the profitability index decision rule, which projects should the firm accept?

6b) If the company applies the NPV decision rule, Which project should it take?

6c) Explain why your answer in part A and Part B might be different.

7) Consider the following two mutually exclusive projects.

Year	CF(a)	CF(B)
0	-245,000	-53,000
1	34,000	31,900
2	49,000	21,800
3	51,000	17,300
4	325,000	16,200

Whichever project you choose., if any, require a return of 13% on your investment.

7a) if you apply the payback criterion, which investment will you choose? Why?

7b) If you apply the NPV criterion., which investment will you choose? Why?

7C) If you apply the IRR. Criteria, which investment will you choose? Why?

7d) If you apply the Profitability index criterion., which investment will you choose? Why?

7e) Based on your answers in part A through D. Which project will you finally choose? Why?

8) Brush Company is presented with the following two mutually exclusive projects. The required return for both projects is 15%.

Year	CF(a)	CF(B)
0	-140,000	-359,000
1	61,500	159,300
2	73,400	168,400
3	68,100	154,800
4	40,500	110,400

8a) what is the IRR for each project?

8b) What is the NPV for each project?

8c). Which, if either, of the projects should the company accept?

9) Coore Manufacturing has the following two possible projects. The required rate of return is 12%.

Year	CF(a)	CF(B)
0	-47,600	-81,000
1	23,900	34,000
2	18,600	32,800
3	20,700	30,500
4	14,600	27,300

9a) What is the profitability index for each project?

9b) What is the NPV for each project?

9c) Which of either, of the project, should the company accept?

10) The Yurdone Corporation wants to set up a private Cemetery business. According to the CFO, business is looking up. As a result, the Cemetery project will provide a net cash flow of \$164,000 for the firm during the first year, and cash flows are projected to grow at a rate of 4.7% per year forever. The project requires an initial investment \$1,825,000.

10a) if the company requires a return of 12% on such undertakings, should the Cemetery business be started?

10b) The company is somewhat unsure about the assumption of a 4.7% growth rate in its cash flow. At what constant growth rate would the company just break even? If it still required a return of 12% on its investment?