

## Accounting 102 Group Project on Capital Budgeting (Writing Assignment)

Madison Capital Group is considering allocating a limited amount of capital investment funds among four proposals. The amount of proposed investment, estimated income from operations, and net cash flow for each proposal are as follows:

	Investment	Year	Income from Operations	Net Cash Flow
<b>Proposal A:</b>	\$ 540,000	1	\$ 42,000	\$ 150,000
		2	\$ 42,000	\$ 150,000
		3	\$ 42,000	\$ 150,000
		4	\$ (18,000)	\$ 90,000
		5	\$ (18,000)	\$ 90,000
				<b>\$ 90,000</b>
<b>Proposal B:</b>	\$ 250,000	1	\$ 50,000	\$ 100,000
		2	\$ 40,000	\$ 90,000
		3	\$ 30,000	\$ 80,000
		4	\$ 15,000	\$ 65,000
		5	\$ 15,000	\$ 65,000
				<b>\$ 150,000</b>
<b>Proposal C:</b>	\$ 640,000	1	\$ 92,000	\$ 220,000
		2	\$ 82,000	\$ 210,000
		3	\$ 82,000	\$ 210,000
		4	\$ 62,000	\$ 190,000
		5	\$ 32,000	\$ 160,000
				<b>\$ 350,000</b>
<b>Proposal D:</b>	\$ 310,000.00	1	\$ 68,000.00	\$ 130,000.00
		2	\$ 38,000.00	\$ 100,000.00
		3	\$ (2,000.00)	\$ 60,000.00
		4	\$ (2,000.00)	\$ 60,000.00
		5	\$ (2,000.00)	\$ 60,000.00
				<b>\$ 100,000.00</b>

The company's capital rationing policy requires a maximum cash payback period of three years. In addition, a minimum average rate of return of 12% is required on all projects. If the preceding standards are met, the net present value method and present value indexes are used to rank the remaining proposals.

### Instructions

1. Compute the cash payback period for each of the four proposals. Round to nearest month.
2. Giving effect to straight-line depreciation on the investments and assuming no estimated residual value, compute the average rate of return for each of the four proposals. Round to one decimal place.
3. Using the following format, summarize the results of your computations in parts (1) and (2). By placing a check mark in the appropriate column at the right, indicate which proposals should be accepted for further analysis and which should be rejected.

Proposal	Cash Payback Period (List)	Average Rate of return (List)	Accept for Further Analysis	OR	Reject
A					
B					
C					
D					

4. For the proposals accepted for further analysis in part (3), compute the net present value. Use a rate of 12% and the present value of \$1 table appearing in the chapter. Round to the nearest dollar.
5. Compute the present value index for each of the proposals in part (4). Round to two decimal places.
6. Rank the proposals from most attractive to least attractive, based on the **present values** of net cash flows computed in part (4).
7. Rank the proposals from most attractive to least attractive, based on the **present value indexes** computed in part (5).
8. Using Excel, compute the internal rate of return.
9. Based upon the analyses done above, comment on the relative attractiveness of the proposals ranked in parts (6) and (7). Which provides the most useful results.
10. If you were making the investment decision, show how you would rank the proposals, and by what method you made your decision.
11. What other non-financial factors should be considered?