

Comparing Two Projects

1. Using the Net Present Value Method:

Required Rate of Return	18%
Inflation	<u>3%</u>
Nominal Interest Rate	15%

<i>Project Omega</i>	Year 0	Year 1	Year 2	Year 3
Outflows	225000	190000	0	30000
Inflows	0	0	150000	220000
Net Inflows	-225000	-190000	150000	190000
NPV (at Required Rate of Return)	\$ 119,689.07			
Nominal NPV*	\$169,549.25			

<i>Project Alpha</i>	Year 0	Year 1	Year 2	Year 3
Outflows	300000	100000	0	50000
Inflows	0	50000	150000	250000
Net Inflows	-300000	-50000	150000	200000
NPV (at Required Rate of Return)	\$ 176,525.49			
Nominal NPV*	\$230,614.66			

*With inflation reducing the value of money @3%/annum, the nominal interest rate reflected into the discounted cash flows.

2. Using the Payback Method

	<i>Project Omega</i>	<i>Project Alpha</i>
Investment	\$ 505,000	\$ 530,000
Average Annual Savings	\$ 155,286	\$ 171,429
Payback Period (years)	3.25	3.09
Rate of Return	30.75%	32.35%

Analysis:

1. Since the NPV, the nominal NPV for both projects is positive, each is eligible for consideration.
2. Since each project's payback period is less than 7 years, and the Rate of Return exceeds the Required Rate of Return.
3. Project Alpha has a higher NPV and Rate of Return, along with a shorter Payback Period.

Conclusion: Project Alpha would be selected, if financial criteria were the sole or most important

Year 4	Year 5	Year 6	Year 7	Total
	30000		30000	505000
215000	205000	197000	100000	1087000
215000	175000	197000	70000	582000
	50000		30000	530000
250000	200000	180000	120000	1200000
250000	150000	180000	90000	670000

its expected inflation, which must be calculated

on.

18% required rate, both are eligible for consideration.

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