ADVANCED CAPITAL BUDGETING DECISIONS

CLASS 7-HW-Q14

Topic Certainty Equivalent

Question 14:

XYZ PLC employs certainty-equivalent approach in the evaluation of risky investments. The finance department of the company has developed the following information regarding a new project:

Year	Expected CFAT	Certainty-equivalent quotient
0 (Initial Outlays)	(£ 200,000)	1.0
1	£ 160,000	0.8
2	£ 140,000	0.7
3	£ 130,000	0.6
4	£ 120,000	0.4
5	£ 80,000	0.3

The firm's cost of equity capital is 18%; its cost of debt is 9% and the riskless rate of interest in the market on the treasury bonds is 6%. Should the project be accepted?

(Source: ICAI)

ANSWER:

Determination of NPV:

Year	Expected CFAT	Certainty-equivalent (CE)	Adjusted CFAT (CFAT X CE)	PV factor (at 0.06)	Total PV
0	(£ 200,000)	1.0	£ (200,000)	1.000	(£ 200,000)
1	£ 160,000	0.8	£ 128,000	0.943	£ 120,704
2	£ 140,000	0.7	£ 98,000	0.890	£ 87,220
3	£ 130,000	0.6	£ 78,000	0.840	£ 65,520
4	£ 120,000	0.4	£ 48,000	0.792	£ 38,016
5	£ 80,000	0.3	£ 24,000	0.747	£ 17,928
NPV					**129,388**