

## FACULTY OF COMMERCE AND MANAGEMENT

**COURSE: BBA III SEM.** 

SUBJECT: FINANCIAL MANAGEMENT

SUBJECT CODE: BBA 303

**LECTURE: 16** 

NAME OF FACULTY: DR. PALASH BAIRAGI





## 2.2.3 Risk and Uncertainty in Capital Budgeting

All the techniques of capital budgeting require the estimation of future cash inflows and cash outflows. But due to uncertainties about the future, the estimates if demand, production, sales cannot be exact. All these elements of uncertainty have to be taken into account in the form of forcible risk while taking a decision on investment proposals. The following two methods are suggested for accounting for risk in capital budgeting.

Risk adjusted cut off rate or method of varying discount rate.

Certainty equivalent method.

**Risk adjusted cut off rate or method of varying discount rate:** The simplest method for accounting for risk in capital budgeting is to increase the cut-off rate or the discount factor by certain % on account of risk. The projects which are more risky and which have greater variability in expected returns should discounted at higher rate as compared to the projects which are less risky and are expected to have lesser variability in returns.

The greater drawback of this method is that it is not possible to determine the risk premium rate appropriately and moreover it is the future cash flow, which is uncertain and requires the adjustment and not the discount rate.

**Illustration 4.** The Beta Company Is considering the purchase of new investment. Two alternatives investments are available (A and B) Rs.1, 00,000. Cash flows are expected to be as follows:

YEAR	CASH FLOWS				
	INVESTMENT A (Rs)	INVESTMENT B(Rs)			
1	40,000	50,000			
2	35,000	40,000			
3	25,000	30,000			
4	20,000	30,000			

The company has a target return on capital at 10%. Risk premium rates are 2% and 8%. For investments A and B. which investments should be preferred?

## Solution:

The profitability of the investments can be compared on the basis of net present values cash inflows adjusted for risk premiums rate as follows:

Year		Investment A			Investment B	
	Discount Factor@ 10%+2% = 12%	Cash Inflows Rs.	Present Value Rs.	Discount Factor@ 10%+8% = 18%	Cash Inflows Rs.	Present Value Rs.
1 2 3 4	.893 .797 .712 .635	40,000 35,000 25,000 20,000	35,720 27,895 17,800 12,700 94,115	.847 .718 .609 .516	50,000 40,000 30,000 30,000	42,350 28,720 18,270 15,480 1,04,820
1,00,000 Net Present Value		R 1e =	Investment A Rs 94,115-1,00,000 = Rs(-) 5,885		Investment B Rs. 1,04,820- = Rs. 4,820	

As even at a higher discount rate investment B gives a higher present value, investment B Should be preferred.