RAMA UNIVERSITY

www.ramauniversity.ac.in

FACULTY OF COMMERCE AND MANAGEMENT

COURSE: B.COM V SEM.

SUBJECT: INTRODUCTION TO FINANCIAL MANAGEMENT

SUBJECT CODE: BCH 505

LECTURE: 16

NAME OF FACULTY: DR. PALASH BAIRAGI

LECTURE-16

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	.893	40,000	35,720	.847	50,000	42,350
2	.797	35,000	27,895	.718	40,000	28,720
3	.712	25,000	17,800	.609	30,000	18,270
4	.635	20,000	12,700	.516	30,000	15,480
			94,115			1,04,820

	Investment A	Investment B
	Rs 94,115-1,00,000	Rs. 1,04,820-1,00,000
Net Present Value	= Rs(-) 5,885	= Rs. 4,820

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