

Project A

At 10%:

Time	CASH FLOW	10% DF	P. V.
0	(110)	1	(110)
1	55	0.909	50
2	65	0.826	53.69
3	30	0.753	22.59
4	10	0.683	6.83
4	10	0.683	6.83

$$NPV = \underline{\underline{29.94}}$$

At 25%:

Time	CASH FLOW	25% DF	P. V.
0	(110)	1	(110)
1	55	0.800	44.00
2	65	0.640	41.60
3	30	0.512	15.36
4	10	0.409	4.09
4	10	0.409	4.09

$$NPV = \underline{\underline{(0.86)}}$$

$$IRR = 10 + \left[\frac{29.94}{29.94 + 0.86} \times 15 \right]$$

$$= \underline{\underline{24.58\%}}$$

Discounted Payback Period

TIME	TOTAL DISCOUNTED CASH FLOW
1	50
2	103.69
3	126.28
4	133.11
4	139.94

To Recoup \$100m:

$$DPP = 2 + \frac{6.31}{27.59} = \underline{\underline{2.28 \text{ YEARS}}}$$

Project B:

Time	CASHFLOW	10% DF	P.V.
0	(100)	1	(100)
1	30	0.909	27.27
2	35	0.826	28.91
3	50	0.753	37.65
4	30	0.683	20.49
4	10	0.683	6.83

$$NPV = \underline{\underline{21.15}}$$

Time	CASHFLOW	25% DF	PV
0	(100)	1	(100)
1	30	0.800	24.00
2	35	0.640	22.40
3	50	0.512	25.60
4	30	0.409	12.27
4	10	0.409	4.09

$$NPV = \underline{\underline{11.64}}$$

$$IRR = 10 + \left[\frac{21.15}{21.15 + 11.64} \times 15 \right]$$

$$= \underline{\underline{19.67\%}}$$

DISCOUNTED PAYBACK PERIOD

Time	TOtal Disc. CASH FLOW
1	27.77
2	56.18
3	93.83
4	114.32
4	121.15

$$DPP = 3 + \frac{6.17}{20.49} = \underline{\underline{3.3 \text{ yrs}}}$$

SUMMARY

	A	B
DPP	2.88 yrs	3.30 yrs
NPV	29.94	21.15
IRR	24.58%	19.67%

∴ Select Project A