7.01.2022

Date
DELTA Pg No.

$$150(1+i)^{2.5} + 30(1+i)^{1.5} + 40(1+i)^{0.5} = 280$$

The market of small grand asset was 2.7 millio on 1 Jan 2006 and 3.1 million on 31 Dec 2006 bank interest and dividend totalling to 125000 recieved on 30th June. cash payment of 100,000 recieved on 1st August when a block of shares wreee sold. A lumpsum retire benefit pr made on 1 may was 75,000 .50,000 payed by company on 31st Dec Show that MWIRR

$$2700(1+i) + 125(1+i)^{0.5} + 100(1+i)^{\frac{5}{12}} + 75(1+i)^{\frac{8}{12}} + 50(NAV) = 3100 \quad X$$

$$2700(1+i) - 75(1+i)^{\frac{8}{12}} + 50 = 3100$$

lottery winner investment portfolio per 2006 year

	Fund value	cash flow
1 Jan	75000	
31st march	90,000	
1st Apr	won lottery invest	2,700,000
30th Sept	2,600,000	
1st oct	Fund withdrawn	2,500,000
31 sth		

$$75(1+i) + 2700(1+i)^{\frac{9}{12}} - 2500(1+i)^{\frac{3}{12}} = 125$$

$i \approx 10.2\%$

RWIRR

$$(1+i)^{2.5} = \frac{175}{150} \times \frac{225}{175+30} \times \frac{280}{225+40}$$

Q Ery MVRR 4.1%. 2.8%. 1.7%. 2.1%
2.5%. 3.8%.

$$1 \quad \frac{1.041 \times 1.028 \times 1.017 \times 1.021 \times 1.025 \times 1.0}{\text{yr } 1}$$

$$(1.132257)^{\frac{1}{2}} \qquad \text{yr} = (1+i)$$

$i = 8.73\%$

Flat rate

$$\frac{\text{Interest}}{\text{Initial loan amount}} \times \frac{1}{\text{no of years}} = \text{Total} - \text{original} \times \text{years}$$

APR

$$\frac{\text{Average annual interest}}{\text{average loan amount}} = \frac{\text{average annual int}}{\frac{1}{2} \times \text{original loan}}$$

Q $A = 3000$, $n = 25$ year, $i = 12\%$

i) $3000 = X \cdot a_{\overline{25}|}^{12\%}$

$$X = \frac{3000}{\frac{1 - \left(\frac{1}{0.12}\right)^{25}}{0.12}} = \frac{3000}{-8.7354}$$

8. ~~$X = C(1+i)^2$~~ , ~~$2x = A(1+i)^4$~~

6. $(1+i)^{14} = (1.05)^8 (1.006)^{6(12)}$

$1+i = ((1.05)^8 (1.006)^{72})^{\frac{1}{14}}$

$= (1.05)^{\frac{8}{14}} (1.006)^{\frac{72}{14}} + 1$

$= 0.060398$

8. $PV = 6000$, $R = 6.5\%$

$n = 2x$

$n = 4 + 2x$

$AV_{2x} = 6000(1+0.065)^2$

$AV_4 = [6000(1+0.065)^2 - x] \times (1+0.065)$

$2x = (6805.35 - x)(1.134225)$

$2x = 7718.79104 - 1.134225x$

$3.134225x = 7718.79104$

$x = 2462.745369$

9. $SD = 2\%$

$1 + P(n) = \frac{1}{1 - n(d)}$

$1 + Si = \frac{1}{1 - 5(0.02)}$

$Si = \frac{1}{1 - 0.1}$

$Si = \frac{0.1}{0.9}$

$i = \frac{1}{45} = 0.0222 = 2.222..\%$

$2A = A(1 + i\%)^9$

$2 = (1 + i\%)^9$

$1.08006 = 1 + i\%$

$0.08006 = i\%$

$8.00599\% = i\%$

6. $AV_{14} = AV_8$ @ 5% + AV_6 @ 0.6%

$AV_{14} = C.(1 + 14 \times i)$

$AV_8 = C.(1 + 8 \times 0.05 \times 8)$

$AV_6 = C.(1 + 6 \times 0.006)$

$\frac{i^{(12)}}{12} = \frac{0.6}{12}$

$0.6 \times 12 =$

$1 + 14i = 1 + 0.05 \times 8$

$i = \frac{0.05 \times 8}{14}$

$1 + 14i = 1 + 6 \times 0.006$

$i = \frac{6 \times 0.006}{14}$

$C.(1 + 14 \times i) = C.(1 + 0.05 \times 8) + C(1 + 0.05 \times 6)$

$1 + 14i = 2 + 0.05 \times 8 + 0.05 \times 6$

$i = \frac{1 + 0.05 \times 8 + 0.05 \times 6}{14}$

7. $1450 = 1320(1 - 1.d)$

$\frac{1450}{1320} - 1 = -d$

$9.84848 = d\%$

$PV = C.(1-d)^n$

$1320 = 1450(1-d)$

$\frac{1320}{1450} = 1 - d$

$d = 0.089655172$

$d\% = 8.9655\%$

$1 + i = \frac{1}{1-d}$

$1 + i = \frac{1}{(1 - 0.089655)}$

$i + 1 = 1.09848$

$i = 0.09848$

$i\% = 9.84848\%$