

PORTFOLIO MANAGEMENT

CLASS - 8

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$B_p =$ weighted average

usik
A, B, C, D me kitna invest karne ki $B_p = 1$ aaye.
 w_c ($0.55 - w_c$)

$$w_A = \frac{4}{20} = 0.20$$

$$w_B = \frac{5}{20} = 0.25$$

$$\therefore w_c + w_D = 0.55 \dots \dots \textcircled{1}$$

$B_p = 1$ (same as market)

$$0.2 \times 0.7 + 0.25 \times 1.1 + w_c \times 1.6 + w_D \times 0 = 1$$

$$0.415 + 1.6w_c = 1$$

$$w_c = \frac{0.585}{1.6}$$

$$= 0.366 \approx 0.37$$

$$\therefore w_D = 0.55 - 0.37 = 0.18$$

$$\therefore \text{Investment in C} = 0.37 \times 20 \text{ lakh} = 740,000 \text{ approx}$$

$$\text{" " D} = 0.18 \times 20 \text{ lakh} = 360,000 \text{ approx}$$

Q4.

i) $B_p =$ Simple average

$$= \frac{1.6 + 1 + -0.3 + 2 + 0.6}{5}$$

$$= 0.98 \text{ (Ans) (Defensive)}$$

ii)

$$W_e = 0.15$$

$$W_p = 0.15$$

$$W_c = 0.10$$

$$\therefore \text{Balance weight} = 1 - 0.4$$

$$= 0.60 \text{ — equally divided i.e. } 0.3 \text{ each}$$

in K & D.

$$\therefore W_k = 0.30$$

$$W_D = 0.30$$

$$\therefore B_p = 0.15 \times 1.6 + 0.3 \times 1 + 0.15 \times -0.3 + 0.30 \times 2 + 0.10 \times 0.6$$

$$= 1.155 \text{ (Ans)}$$

Height of Ambiguity

(ii)

as times repeated in ATP/MTP

R_f should have been given. Since it is not given we are using unitary method.

$$\text{In Q.(i)} \quad B_p = 0.98$$

$$\therefore E(R) = 0.98 \times 12 = 11.76$$

$$\text{In Q.(ii)} \quad B_p = 1.155$$

$$\therefore E(R) = 1.155 \times 12 = 13.86$$

Bull case :-

We should invest in high Beta stocks i.e. D, S & K with weights of 60%, 20% & 20% respectively.

$$\therefore \rho_p = 0.6 \times 2 + 0.2 \times 1.6 + 0.2 \times 1$$

$$= 1.72$$

Given $R_m = 10\%$

$$\therefore E(R) = 1.72 \times 10$$

$$= 17.2\% \text{ (Ans)}$$

Bear Phase :-

We should invest in low Beta stocks i.e. P, C & K with weights of 60%, 20% and 20% respectively

$$\therefore \rho_p = 0.6 \times -0.3 + 0.2 \times -0.1 + 0.2 \times 0.2$$

Given $R_m = 10\%$

$$\therefore E(R) =$$

Q.3. $\left(\frac{42-4}{22-2}\right)$ ^{same} as $\lg 51 \& 18$ (Vol 1) just that the probabilities are 75% & 25%.

Q. iv $\rightarrow \alpha \rightarrow$ ambiguous.
 $\hookrightarrow$ CL wala nikalna tha.

Q2.	Yr	A	B	C
9	2018	2%	3%	5%
	2019	6%	8%	7%
	2020	13%	14%	15%
	2021	7%	9%	11%
		28	34	38
		28/4	34/4	38/4
	$\therefore E(R) =$	7	8.5	9.5

~~Q.3~~
Portfolio 1 : 65% A & 35% B

$$E(R) = 0.65 \times 7 + 0.35 \times 8.5$$

$$= 7.525\%$$

Portfolio 2 : 25% A & 65% B

$$E(R) = 0.35 \times 7 + 0.65 \times 8.5$$

$$= 7.975\%$$

Portfolio 3 : 65% B & 35% C

$$E(R) = 0.65 \times 8.5 + 0.35 \times 9.5$$

$$= 8.85\%$$

Portfolio 4 : 35% B & 65% C

$$E(R) = 0.35 \times 8.5 + 0.65 \times 9.5 \\ = 9.15\%$$

Portfolio 5 : 65% A & 35% C

$$E(R) = 0.65 \times 7 + 0.35 \times 9.5 \\ = 7.875\%$$

Portfolio 6 = 35% A & 65% C
 $= 0.35 \times 7 + 0.65 \times 9.5$
 $= 8.625\%$

∴ Highest return having Portfolio 4 = 9.15%
 i.e. 35% B & 65% C

ii) $w_A = \frac{65000}{100,000} = 0.65$

$$w_B = \frac{20,000}{100,000} = 0.20$$

$$w_C = \frac{15000}{100,000} = 0.15$$

$$\therefore E(R) = 0.65 \times 7 + 0.2 \times 8.5 + 0.15 \times 9.5 \\ = 7.675\% \quad (\text{Ans})$$

$$R_p = \text{weighted average} = 0.65 \times 0.45 + 0.2 \times 1.15 + 0.15 \times 1.8 \\ = 0.7925 \quad (\text{Ans})$$