DAFFODIL INSTITUTE OF INFORMATION TECHNOLOGY (DIIT)

Third Year, Sixth Semester

BBA (Honours) in Tourism and Hospitality Management (THM)

Fundamentals of Finance

Chapter -2

Concepts of Risk and Return

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1. Security A has an expected return of 7 percent, a standard deviation of expected returns of 35 percent, a correlation coefficient with market of -0.3, and a beta coefficient of -1.5. Security B has an expected return of 12 percent, a standard deviation of expected return of 10 percent, a correlation coefficient with market of 0.7, and a beta coefficient of 1.0. Which security if riskier? Ans. 5005, 83.33% (NU Year Question- 2005)
2. Suppose the required rate of return on a portfolio with beta of 1.2 is 18% and the risk free rate is 6%. According to the CAPM what is the expected rate of return on the market portfolio? Ans. 16% (NU Year Question- 2009)

3. At present, suppose the risk free rate is 12% and the expected return on the market portfolio is 16%. The expected returns for four stocks are listed together with their expected beta:

Stock	Expected Return	Expected Beta
A	18%	1.35
B	15%	0.85
C	16%	1.20
D	20%	1.75

On the basis of these expectations, which stocks are overvalued and undervalued? Ans. 17.4% Undervalued, 15.4% Overvalued, 16.8% Overvalued, 19% Undervalued.(NU Year Question-2008)

4. Mr. Rahman creates a portfolio having a slandered deviation of 32%. The return on the Treasury bill which is tax free is 3.5%. If the expected market return is 16% and the market standard deviation is estimated to be 22%, calculate the expected return on the portfolio created by Rahman. Ans. 21.68% (NU Year Question- 2011)

5. Use the equation for the capital asset pricing model (CAPM) to work each of the following problems:
   (a) Find out the required return for an asset with a beta of 0.90 when the risk free rate and market return are 8 percent and 12 percent respectively. Ans. 11.60%
   (b) Find out therisk free rate for an asset with arequired return of 15 percent and beta of 1.25 when the markets returnis 14 percent. Ans. 10%
   (c) Find the market return for an asset with a required return of 16 percent and beta of 1.10 when the risk free rate is 9 percent. Ans. 15.36%
   (d) Find out the beta for an asset with a required return of 15 percent when the risk free rate and market return are 10 percent and 12.5 percent respectively. Ans. 2

6. Suppose the risk free rate is 12% and the expected market return is 20%. ABC Company has a beta of 0.75 and XYZ Company has a beta of 1.25.

   a. Find the expected return on ABC Company and XYZ Company. Ans. 18%, 22%
   b. Suppose that because of sudden unanticipated increase in inflation, the risk free rate rises to 16% and the market risk premium remains at 8%. Find out the expected returns on ABC and XYZ Company. Ans. 22%, 26%
   c. What is the expected return of a portfolio that has 20% of its value in ABC Company and 80% in XYZ Company? Ans. 21.20%

7. A stock has a beta of 1.2. The expected return on the market is 17 percent and risk free rate is 8 percent. What must the expected return on this stock be? (NU Year Question- 2016)

8. The risk free rate of interest on a treasury bond is 6%, the risk free rate of return on the market portfolio is 15% and the beta factor of stock A is 2.50. What is the expected rate of return on stock A? Use capital Asset Pricing Model (CAPM). (NU Year Question- 2015)