ECON F 412 – Assignment Problem Statement

Assignment tasks are open-ended. Use your judgment in answering the questions. *Evaluation will be based on the relative performance and our expectations.*

Important: For the assignment, your group must identify one company from the population of all listed companies on the Indian stock exchanges. You are not required to provide a justification for company selection, but must simply adopt random selection to ensure that your group's choice of the company is unique (The MCAP of the company must be greater than Rs 5,000 crore).

Part I – To be submitted by 18 Nov EoD (55% weight-age)

Carry out the following tasks on the company that your group has chosen and analyse the results for the company you have chosen to work on (analysis may include comparison with industry average and other critical aspects):

a. The average annualised return (using daily or weekly data) over the past 3 years.
b. The company's unique risk (using daily or weekly data).
c. The company's systematic risk.
d. Compute the dividend yield on the stock and analyse the trends and patterns.
e. Estimate the required rate of return demanded by the shareholders.
f. Based on the above, summarise whether the stock is strong, weak, or average from a risk-reward perspective.
g. Price-volume data and market depth analysis of the stock – For this task you may consider past 1-2 months data.

Part II – To be submitted by 27 Nov EoD (45% weight-age)

Part II of the assignment requires you to analyse the performance of a five-company portfolio. Identify four other companies from different sectors, now you have a portfolio of five companies: one from part I of the assignment and the rest four selected in part II.

The time period is up to you to decide, but it should be at least 2 years.

Calculate each stock's annual expected returns, the risk of the stock, and the stock's coefficient of variation. Further, rank the companies from best to worst based on their price performance and risk. Then, create different portfolios (price-weighted, value-weighted, equally weighted, and beta-weighted) and calculate the risk and return of those portfolios based on Markowitz's approach.

Provide a detailed portfolio analysis for the portfolio including covariance matrix, Markowitz frontier, Sharpe ratio, and comparison of the portfolio performance with market portfolio. Based on your analysis, elaborate on whether the efficient market hypothesis holds.

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