

SAPM- ECON F412

Semester-1-2024-25

Assignment on Modern Portfolio Theory (20 marks)

Group size- 7/8 in each group

Submission Date: October 20, 2023

Problem Statement: For a set of securities, generate the efficient frontier according to the Markowitz Portfolio Theory and construct the tangency portfolio.

Objectives

1. Generating a domestic portfolio:
 - a) Consider the companies and trace the efficient frontier.
 - b) Find the tangency portfolio after including risk-free asset and its risk and return.
 - c) Compare the performance of the portfolios generated in (a) and (b) above with respect to the performance of the index (NIFTY50/ SENSEX30)
2. Generating an international portfolio:
 - (a) In addition to the companies, add one international security/ index and one cryptocurrency/ to the portfolio and repeat steps 1(a) and 1(b).
 - (b) Compare the performance of this portfolio to the domestic portfolio and also to the index.

Additional information:

Download the financial data for these securities for a calendar year/ financial year as per your convenience.

You may use RBI/ EPWRF to obtain T-bill rates for risk-free rate.

Deliverables:

1. Document summarizing the findings and conclusions. In the case of handwritten documents, a scanned copy of the same can be submitted.
2. Underlying program file

Note:

- 2 marks will be deducted if the name and IDs of students are missing.
- Only 1 person from the group should submit the assignment on LMS.