

## FIN 470: Financial Analysis in Excel

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## Group Excel Assignment 12, Portfolio Statistics

Remember that for credit all Excel spreadsheets must conform to the Excel Guidelines.

**CAUTION**: Capital IQ (as well as other web sites) automatically downloads data as a 1997-2003 (xls) format Excel file. Immediately save your file in the current (xlsx) format since some recent Excel features are not available in the earlier format.

- 1. Create a workbook "FIN 470 A12 Group X (Fall22).xlsx".
- 2. On a worksheet called, "Data":
  - A. Download
    - i. 5 years of monthly stock prices for your firm, IBM, and Target, then calculate the corresponding EARs.
  - B. Calculate the following probability measures:
    - i. Average
    - ii. Variance
    - iii. Standard Deviation
    - iv. Coefficient of Variation
    - v. Skewness
    - vi. Kurtosis
- 3. On a worksheet called, "VarCov":
  - A. Calculate the variance/covariance matrix for your firm, IBM, and Target using Excel linear algebra functions.
- 4. On a worksheet called, "Calc":
  - A. Using the variance/covariance matrix, find the expected return and standard deviation for anm equally weighted portfolio.
  - B. Use Solver to find the expected return and standard deviation of the minimum variance portfolio (MVP).
- 5. On a worksheet called, "EffFront":
  - A. Use Solver to calculate the efficient frontier.
  - B. Graph the efficient frontier.