**BFC3540 Week 2 Excel Spreadsheet -
The Statistical Properties of Portfolios**

Download the Excel File from the Week 2 Spreadsheet Material Folder and save it to your disk.

Open the Excel File. There are 3 worksheets (Name, Task 1, and Task 2) in this workbook. The default worksheet when you open the file is **Name**.

i.   In the **Task 1** worksheet, price data for 13 weeks on two stocks are given. You are required to calculate the following:

Problem 1: weekly returns for each of the stocks
Problem 2: the mean, variance and standard deviation of each stock's return
Problem 3: the covariance of the returns
Problem 4: the correlation coefficient of the returns
Problem 5: calculate the portfolio mean, variance and standard deviation

ii. In the **Task 2** worksheet, you are given the following parameters of a four-asset: the mean returns, the variance-covariance matrix and the weights of the four-asset in two portfolios. You are required to:
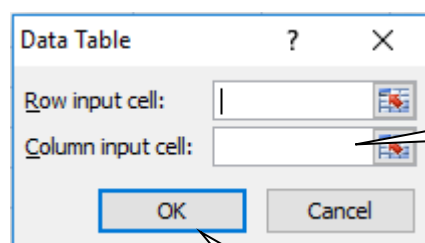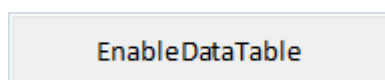
Problem 1: transpose the weights of the two portfolios
Problem 2: calculate the mean, variance and standard deviation of each portfolio's return
Problem 3: calculate the covariance and correlation coefficient of the portfolio's returns
Problem 4: calculate the returns of combinations of portfolio 1 and portfolio 2
Problem 5: find the corresponding return combinations for each proportion of portfolio 1 using Data Tables. First, click the button Enable Data Range to permit using What if analysis on this worksheet (See below). Highlight the blue range, click **Data > What if analysis> Data Table** and you will be prompted to enter the row or column input cell as shown below. For a one-variable data table, you only need to enter only one cell, depending on how you have set up your table.