

**Systematic Investing**  
**Professor Dhar**  
**Spring 2024**

**Assignment RISK**  
**(Data available on class website)**

You are provided daily returns data for three time series for 2,000 days. The three series shown in columns A1, A2, and A3 contain the daily returns of three time series. These are END OF DAY returns, i.e. based on closing prices of markets.

**Questions**

What are the pairwise correlations of the three series?

Which series has the “best” performance? On what basis did you gauge this?

What is the performance of the combination of the three series if their daily returns are combined equally?

What is its worst drawdown?

What is the performance of the combination of the three if their returns are combined in proportions that are inverse to their 20 day trailing volatility?

What is its worst drawdown?

Can you predict A3 based on either A1 or A2 or a combination of the two? If so, what is the strategy and its performance?