

Homework 1

1. Consider the daily simple returns of American Express (AXP) in the file `hw1data.txt`. Answer each question in complete sentences. You need to provide appropriate R codes for each of the question.
 - (a) Compute the sample mean, standard deviation, skewness, excess kurtosis, minimum, and maximum of the simple returns.
 - (b) Transform the simple returns to log returns. Repeat (a).
 - (c) Test the null hypothesis that the mean of the log returns of AXP stock is zero. Use 5% significance level to draw your conclusion.
 - (d) Test the null hypothesis that the skewness measure of the log returns is zero. Use 5% significance level to draw your conclusion.
 - (e) Test the null hypothesis that the excess kurtosis of the log returns is zero. Use 5% significance level to draw your conclusion.