

Assignment is due prior to the second scheduled class period. I strongly advise that you start this as soon as possible so that you will have time to get help should you encounter problems.

1. Go to YouTube.com and view the first 3 SAS sessions of Mike's SAS Tutorials. Link is here: <https://www.youtube.com/user/mbate001>. After viewing the videos, read the first chapter of *My Little SAS Book*. The first chapter is free at the link posted in the course syllabus. The rest of this book is available from Amazon for about \$50 (paperback edition) and \$25 (KINDLE edition).
2. Using his variable-assignment method, write a SAS program that first creates three variables: RF, RM, and R. Assign R the value 0.04, RM the value 0.12 and R the value 0.14. Before proceeding, use the video's PROC PRINT procedure to make sure you have done the DATA step correctly.

According to the Capital Asset Pricing Model (CAPM), the beta of a stock can be determined as follows:

$$\beta = \frac{R - RF}{RM - RF}$$

Given this formula, add a line to your SAS code to calculate the beta of the stock. Your code should be the first line after the three assignment statements and will look like the following:

```
beta = (R - RF) / (RM - RF);
```

Add a PROC PRINT and run the DATA STEP and the PROC step.

Print the output to a PDF named: yourname\_A1\_2.pdf. You will be turning this in.

3. Now use the CARDS method to compute beta for three stocks. This time you will leave out the assignment statements because you will be reading in the observations listed below but you will need the assignment statement to compute the variable beta.

Copy and paste the following observations into your SAS program after the CARDS; statement (don't forget to add one line after the last observation containing a semicolon):

```
0.04  0.12  0.10  
0.04  0.12  0.14  
0.04  0.12  0.18
```

Add a PROC PRINT and print the results from your program as before naming the output yourname\_A1\_3.pdf. You will be turning this in.

The next two problems use data imported from an external source. Since you will be using different computers I can't give precise directions for this. You should download the data sets from BlackBoard to a data stick. When you import into SAS, you will need to specify the address of the data residing on your data stick.

4. From BlackBoard download the data set: data\_A1.txt. It contains 26 observations of RF, RM and R. Each observation is preceded by a firm name. So there are 4 variables for each observation. You will need to modify your input statement in two ways. First, add a variable named firm\_name. Second, you will need to define this variable as character. You do this in the input statement. Your input statement will read:

```
input firm_name $ RF RM R;
```

As before compute beta and print your results in a file named yourname\_A1\_4.pdf.

5. From BlackBoard download the data set: data\_A1.xls. This contains the same type of data as problem 4 above. Repeat problem 4 using the EXCEL data. Print those results in a file named yourname\_A1\_5.pdf.
6. Lastly, as an introduction to the SAS online help facility, go to <http://support.sas.com/documentation/> and search for

### **Reading Raw Data with the INPUT Statement**

Read that entry.

Email the four pdf files to [moser@american.edu](mailto:moser@american.edu) using the subject line FIN574.