

## Fin 335 Assignment 2

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1. Due February 20 (F) (1:00pm). No late submission will be accepted.
2. Total scores: 50 points. You can discuss the assignment with your classmates *but you need to do the assignment on your own hands and write down your own answers*. Otherwise, you learn little from this assignment.
3. After finishing your homework, turn in your assignment electronically via D2L Dropbox.
4. In this assignment, you will have to submit one MS document file (a02.doc), including six estimation results (30 points), four graphs (10 points), and a SAS script (10 points).

Q1.

Say you are a financial analyst in Goldman Sachs, your boss – Britney asked you to investigate the long-run trend of the US Dow Jones Industrial Average Index in order to forecast the future trend of DJ index. You are ready to use three models you learned in Fin 335 to estimate the trend.

1. Collect the Data. Go to Yahoo Finance (<http://finance.yahoo.com/>), under Market Summary, click Dow → click Historical Prices on the left column → Choose Start Date from 1928 to now and check Monthly → Click “Get Prices” → Scroll down → Click “Download To Spreadsheet” → Click “Save” and save the csv file into your computer → Open the file → Delete Column B to E → So you only keep Date, Volume and Adj Close → change the name of Adj close to price → Save the file as **dj30.xls**.
2. Open the Excel file and click and highlight Column A (time date column) → Click Sort & Filter on the right top of the toolbar → Choose “Sort Oldest to Newest” → Choose “Expand the selection” → Click “Sort”.
3. Plot four time series for original DJ30 historical volume, price and their log volume and price → save them in the Excel file.
4. Before you go to SAS procedure, you need to make some work. For example, create a time trend series (1,2,3, ...;  $1^2, 2^2, 3^2, \dots$ ) on your Excel file.
5. Create a SAS script and run the estimation of trend. You need to use SAS ODS to produce an output file named a02.doc. [The procedure is very similar to 04trend.sas. Actually I suggest you just copy that file and modify it for this assignment].
6. In your output word file, there should be six model estimations, three models for volume series and three models for price series. Second, copy and paste four chart of volume and price trends you got from dj30.xls onto a02.doc. Finally, copy and paste the SAS script you wrote onto a02.doc.
7. Briefly explain your results, especially on Adj  $R^2$  and select best model you should present to your boss for DJ30 volume and price forecasting.