Economics 252 Problem Set #3

Stock Market Forecasting Exercise

Step 1: Obtain time series data for a major stock price index, in spreadsheet format. One way to do this is to get onto Yahoo.com, and click Finance/Quotes, then click Indices, then, for the stock price index you choose, click Chart. Then click Historical Quotes at the bottom of the chart. Then choose the time interval and period, I suggest you use a long enough time interval that you have at least 30 rows of data. Then, at the bottom, click Download Spreadsheet. Alternatively you can use the data on the S&P 500 that is in the file RandomWalkEcon252.xls, possibly by adding some other monthly data of your own.

Step 2. On your spreadsheet, create a new column that shows the percentage change in the index (or log index) between periods (as, if you chose monthly, between months). This will be the dependent variable in your regression.

Step 3: On your spreadsheet, create some new columns that represent forecasting variables. The simplest thing to do is to define these in terms of the variables already on the spreadsheet. Or, you can enter some other data that you got somewhere else; that would make for some possibly more interesting forecasting exercises. This will be the independent variable in your regression. Be sure, however, that the independent variable was known at the beginning of the interval of price change shown in the same row, so that it is a genuine forecasting variable.

Step 4. Run a regression that forecasts the price change (or log price change). Is the t statistic significant?

Step 5: Interpret your result, and tell whether you think that you have found a useful? forecasting equation.