Assignment 2.2: Financial Statement Analysis

Submission Details

- Submit through T-square dropbox
- Use SAS for the programming
- You have to submit ONLY
  - SAS program
  - Output in PDF format
  - You don't need to submit any datasets

Assignment

- Compute the descriptive statistics (see excel spread sheet in Assignments) every year
- Descriptive statistics that need to be computed for each of the years and for each variable are
  - Number of observations
  - Mean
  - 25^{th}, 50^{th} and 75^{th} percentiles
  - Standard deviation
  - Minimum and Maximum of the variable
- Correlation matrix for the variables under each category (tab in excel)
- Plot these variables over time. Do you see any trends?
- Get NBER recession data (`https://research.stlouisfed.org/fred2/series/USREC`). Compute the descriptive statistics for NBER recession = 1 and NBER recession = 0. What do you notice?

- Get Moody's BAA-Fed Fund Spread(`https://research.stlouisfed.org/fred2/series/BAAFFM`). Plot the financial variables along with BAA spread. Reflect and comment.
- Get Cleveland Financial Stress Index (`https://research.stlouisfed.org/fred2/series/CFSI`). Its not available for the entire time period. Plot the financial variables along with stress index. Reflect and comment.

Data Extraction

- In order to reduce the time demands for the assignment, I have uploaded the required dataset to tsquare.
- The name of the SAS dataset is FUNDA.SAS7BDAT

SAS commands that may be useful for the Data Analysis

As I mentioned in the class, SAS provides multiple methods to perform any given task. Some of the following commands may be useful (look up the examples from the UCLA SAS web site link that I posted on Tsquare)

- DATA step
- PROC SORT
- PROC FREQ
- PROC UNIVARIATE
- PROC MEANS
- PROC PRINT
- PROC CORR

Data Analysis

Steps in the assignment

1. The data file (funda.sas7bdat) is located on tsquare under resources
2. Download the data to your local computer
3. Use SAS enhanced program editor to write the program. Save the program with extension *.sas*
4. First, set a libname. Say libname comp ' `P:\`' or which ever directory that the data is stored in;
5. Read the data with the following code: *set comp.funda*
6. Read the dataset and subset the data with the *required filters*
7. Be careful with how you write the program. Document the steps and make it readable
8. Check the grading rubric to get a sense of what I am expecting in the assignment
    - There are approximately 1000 variables and a 600,000+ observations. So table size is approximately 600 million items. Data access may take a long time unless you code efficiently
    - I encourage you to write efficient code (remember sequential access in SAS, you don't need to read the data that you don't need)
    - Use macro variables and macros where necessary
    - Write the initial program by reading only 100 observations (use OBS=100 command when you are reading the dataset).
    - Once the program works, you can always remove the 100 obs filter.
9. Use the following filters to subset the data
    - if indfmt='INDL' and datafmt='STD' and popsrc='D' and consol='C'
10. Use PROC MEANS or PROC UNIVARIATE

11. Check the LOG file to see if there are any errors in your code
12. Upload the SAS program (*not* as a word file)and results to tsquare

Notes on Assignment-2.2

1. It is a straightforward assignment, no fancy coding involved and can be done together with 2.1; but make sure you have efficient syntax and documentation

2. Ratios listed in the excel spread sheet are crude measures of financial health of firms. Make sure you understand those ratios. You will need those ratios for Hazard model in later assignments