

## Finance 594 Futures Project

### Part I

1. \$100 million portfolio
2. Use the EQS function in Bloomberg to screen your stocks. Criteria:
  - a. You will make your selections based on 5/3/2011 trading date which gives you the previous day's closing prices to determine your portfolio
  - b. Stocks in the S&P 100 index
  - c. Other metrics you think are good indicators of value. Be careful: Need to look at percentages and ratios, *i.e.*, use figures such as price/earnings, price/book, dividend yield, and NOT things such as earning per shares, book value or dividends
3. You will elect on stock from each of the 9 sectors. Note: we are combining the Telecommunication and Technology sectors into one sector called Technology

Sectors:

Consumer Discretionary	Consumer Staples	Energy
Financial	Health Care	Industrial
Materials	Technology	Utilities

4. One you have selected the 9 stocks, one from each sector, create a portfolio of those stock where the allocation is market capitalization as of 5/2/2011 (this is done for you in the R code). You will create a csv file similar to example file for the market cap.
5. Attached is an R program file that downloads the daily closing prices and dividends from Yahoo. The time range is 1/1/2009 to 11/8/2013. The program initializes your allocation as of 5/2/2011 based on market cap, then adjusts the number of shares in the portfolio prior to and after 5/2/2011. Be sure to change in the input file ***mktcap.csv*** to include your tickers and market capitalizations.

### Getting Started with R

The CME Lab has R and RStudio already installed; however, you can also download these open source programs onto your personal laptops.

Download sites:

R: <http://cran.cnr.berkeley.edu/>

RStudio: <http://www.rstudio.com/ide/download/desktop>

Once you have installed the programs start RStudio. You will need to install some packages used by the R program ***proj.r***. Go to the window with tabs titled Files, Plots, Packages. Selected Packages then click on Install Packages. You will install ***quantmod***, this package will also install other dependencies automatically. Now open your ***proj.r*** file. Be sure that your market cap input file is in the same directory as the ***proj.r*** file. On line 4 you will change the exam ticker symbols to the ones you have chosen. On line 12 you will change ***d\$H*** to ***d\$ticker1***. Under Session/Set Working Directory select To Source File Location. Highlight the source code then press Ctrl-Return to run it.