FRE 7251 Course Project

1. Select a **unique** security (stock, index, or a mutual fund), time period (at least four years) and download relevant daily adjusted closing prices from www.finance.yahoo.com. It can be different from the one used in you HW3 but not the one other students already used. **Put security ticker in the Class List.**
2. Find technical strategy that yields **positive** total return for chosen time period. The sample should accommodate at least **four** round-trip trades (buy-sells and/or sell-buys).

3. Implement the bootstrap (B) protocol for resampling returns assuming that they follow AR(1) process.

4. Check performance of the chosen strategy on 100+ bootstrapped data samples.

5. List your results in the table. The more performance criteria you use, the better.

Sample	# of round-trip trades	Total return, %	Sharpe ratio	B & H return, %	B & H Sharpe ratio	Winning trades, %	Max drawdown, %
Historical	8	42.7	1.23	32	1.01	55	22
B1							
B2							
…							
Average							

6. Draw your P/L distribution of bootstrapped returns, compare it with the Normal distribution and check if its mean total return differs significantly from zero.

7. Write report with all details of your work but **do not put the script** in it. List only historical and average bootstrapped results in the main text; put the table with all bootstrapped data in Appendix. Put the code used for this report in a separate file.

8. Prepare a PowerPoint presentation on **not more than 6 slides** describing;

- What instrument/strategy/time period, and the model for returns you used. **Do not explain all details of your strategy in PPT if the strategy was described in my lectures.**
- Whether the bootstrap resampling confirms profitability of your strategy (it's OK if not).
- Suggest possible ways for improving your P/L.

Submit all your files **before midnight of March 4.Your name should be included in all filenames. Do not zip your files.** Be ready to present your PPT (bring it on a memory stick, not laptop) in class and answer my questions on **March 5 at 11am**. Those who won't be able to attend the live presentation must let me know in advance.