

# FIN 500

## Intro to Finance

### Homework 1

Ideas: Asset Classes; Markets in General; Modern Markets\*

Due: 8 October 2018.

The purpose of this homework is to get you familiar with *R* and looking at some financial data.

As before: you may discuss ideas with one another, but you *must* do your own work and not use someone else's code or writeups. That also means not letting someone else use your work. This has already affected a couple of students: the best grade they can get in the course — even if they get perfect scores — is now a B.

For the textbook exercises, the *R* code in the text (and which you should use and modify) is available from the textbook webpage: [www.q3611c.com/think/investments](http://www.q3611c.com/think/investments).

## Problems

- (5 (bonus)) 1. DataCamp Introduction to R  
I will send you an invite to DataCamp's "Introduction to *R*" course. It is free. Use the link in the email you receive to create an account. Finish the course by October 1 for bonus points.
- (10) 2. Chapter 2, Exercise 1  
A "summary" implies using the *R* function of that name. However, numbers are not sufficient; answer the other questions. 1 point per asset class for summaries, 1 point per asset class for commentary on what summaries suggest.
- (15) 3. Chapter 2, Exercise 2  
Produce and comment on plots for all instruments. Pay particular attention to similarities and differences within and between asset classes. 1 point for all plots in an asset class; 2 points per asset class for commentary on plots.
- (5) 4. Chapter 2, Exercise 3  
2 points for doing the simulation correctly, 3 points for commenting on your findings.
- (5) 5. Chapter 2, Exercise 4

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- (8) 6. Chapter 3, Exercise 1  
Produce and comment on plots. Pay particular attention to similarities and differences within and between asset classes. 1 point for all plots in an asset class; 1 point per asset class for commentary on plots.
- (12) 7. Chapter 3, Exercise 2  
Produce and comment on plots. How do these differ from the preceding plots? 1 point per asset class for plots; 2 points per asset class for commentary on plots. You might even want to compare these to plots from Chapter 2, Exercise 2.
- (5) 8. Chapter 3, Exercise 3
- (8) 9. Chapter 3, Exercise 4  
3 points for plots, 5 points for commentary
- (8) 10. Chapter 4, Exercise 1  
Make sure to get the right numerical precision for this.
- (4) 11. Chapter 4, Exercise 2  
This should be an easy proof. However, even if you cannot get the proof to work, it is informative to consider the idea. Even orders can affect prices.
- (20) 12. Chapter 4, Exercise 3  
4 points per plot, 8 points total for commentary.