Exercises for the Wednesday November 24 Workshop

On Wednesday November 24 there is just one workshop; it takes place in room 8.62 in the EC Stoner Building.

Exercise 8.1
Prove the mimimum variance hedge ratio formula from Hull’s Chapter 3. (See the Appendix.)

Exercise 8.2
In this exercise we will think of ”futures” and ”forwards” as the same thing. On the Course Homepage — or in short http://bit.ly/apmX9x— I have posted a spreadsheet with daily values of the S&P500 index (spot prices) and prices of (approximately) 3-months futures contracts on the index.
(a) Thinking back a-month-and-a-half, are spot and futures price in line with our theory?
(b) Thinking in terms of Hull’s Chapter 3, what is the correlation between changes in spot and futures prices? Does that surprise you?
(c) Thinki back a-month-and-a-half to the ”no arbitrage” argument we used to obtain a ”tight” relationship between forward (and thus for this exercise: futures) and spot prices. Can you imagine or suggest some cases, some mar-kets where the arbitrage trading strategy would be difficult or impossible to carry out? (Spitballing: electricity, commodities, oil vs. fuel, housing, Business Snapshot 5.4.)

Exercise 8.3
Read Business Snapshot 5.2 from Hull’s Chapter 5 carefully. Explain.