Corporate Finance, Module 20: “Introduction to Options”

Readings for Ninth Edition

(The attached PDF file has better formatting.)

Updated: November 19, 2007

The page numbers here are for the *ninth* edition of Brealey and Myers. You may also use the seventh or eighth editions of this text. The page numbers for the seventh and eighth editions are in separate postings.

{The Brealey and Myers textbook is excellent. We say to read certain sections and to skip others. This does not mean that certain sections are better; it means that the homework assignments and exam problems are based on the sections that you must read for this course. Some of the skipped sections are fascinating, but they are not tested.}

Modules 20, 21, 22, and 23 cover options.

- Module 20 is an introduction to options; puts, calls, and put call parity.
- Module 21 covers basic pricing techniques: options deltas and binomial trees.
- Module 22 covers real options: follow-on investments, timing, and abandonment.
- Module 23 covers advanced topics: risky bonds, Black-Scholes, and American options.

Read the introduction on pages 564-565. This introduction covers topics in all four of the options modules for this course. The real options discussed on page 564, from “Second, many capital investments …” through “… to decommission an offshore oil rig” are covered in real options; they won’t be clear to you until you have completed module 22. The paragraph on page 565 “In fact, we shall see that whenever a company borrows, it creates an option …” is covered in Module 23. It takes a while to get used to options theory; have patience as you review these modules.

Read section 21.1, “Calls, Puts, and Shares” on pages 565-569. Before reading pages 568-569, make sure the previous pages are clear to you. Then read the sub-section “Position Diagrams Are Not Profit Diagrams” on pages 568-569. Review Figure 21.3 on page 569, and make sure you understand (i) why the horizontal line is above or below the x-axis by the amount of the option premium and (ii) why the break-even point is more or less than the strike price.

Read section 21.2, “Financial Alchemy with Options,” on pages 569-576. Focus on the put call parity relation on page 572: “c + PV(X) = p + S.” The textbook writes this as “value of call + present value of exercise price = value of put + share price.” The final exam tests this relation.

Pages 574-576 are real options; you may not grasp the concepts until you complete the module on real options. Skim these pages and the rest of the chapter, but don’t worry if you don't grasp all the concepts. The concepts are difficult; after working through the mathematics of Module 21 and the illustrations in Module 22, these pages are easier.

Read the summary on page 582. Look at practice questions 14, 15, and 16 on page 584 and 19 (parts a and b) on page 585. These questions are a good review of the material. Now look at practice questions 23 and 24 on page 585. These two questions test your understanding of the put call parity relation. It takes a while to get the hang of this relation; post your answer to these two questions on the discussion forum to see if you grasp the method.