Corporate Finance, Module 1: "Present Value and the Opportunity Cost of Capital"

Readings for the Fourteenth Edition (2022) of the Brealey, Myers, Allen, and Edmans text

(The attached PDF file has better formatting.)

The sections in this posting are for the *fourteenth* edition of the Brealey, Myers, Allen, and Edmans text. You may also use the seventh through thirteenth editions; final exam problems can be answered from any edition.

{The Brealey, Myers, Allen, and Edmans 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.}

Chapter 1 is an introduction to the textbook; no final exam questions are taken from the first chapter.

Module 1 deals with present values, which candidates use every day in their work. Read Chapter 2, section 2.1, "How to Calculate Future and Present Values," and section 2.2, "How to Value Perpetuities and Annuities." Brealey and Myers use a net present value (NPV) rule, which is equivalent to a rate of return rule. For investment courses, you must know compounding frequencies and the difference between a discount rate and an investment yield. Other actuarial exams focus on compounding frequency, such as annual effective yield vs continuously compounded yield. We use these concepts in the corporate finance course, but this is *not the focus* of the course.

The annuity and perpetuity formulas are used for the present value of perpetual debt. The debt itself always has a maturity; it is not permanent. Perpetual debt means that the firm intends to refinance the debt at its maturity. The formula to evaluate the tax shields from perpetual debt is used for the capital structure modules.

Section 2.3 covers growing annuities and perpetuities, which is covered in greater depth on the actuarial exams. The corporate finance VEE course focuses on the financial theory, not on annuity valuation. The final exam questions can be solved directly by present values of cash flows. The formulas are *not* tested on the corporate finance VEE exam.

Read Section 2.4, "How Interest is Paid and Quoted." Candidates new to financial economics sometimes think a 10% semi-annual coupon bond pays the par value $\times$ ($1.10^{0.5} - 1$) each half year, for an annual effective rate of 10%. This is not correct; the bond pays 5% each half year, for an annual effective rate of 10.25%.

The *key takeaways* at the end of chapters are good reviews of the material. The problems at the end of each chapter are useful for checking that you understand the material. Review problems 1-10, 12, 13, 15, 16, 18a.

The textbook questions are *not* the homework assignments for this course, though they help you review the material. Illustrative test questions, problems, and homework assignments are shown separately on the discussion forum.