

## Corporate Finance, Module 17, "Optimal Corporate Borrowing"

### *Corporate finance module 17: Readings for Eleventh Edition*

(The attached PDF file has better formatting.)

The page numbers here are for the *eleventh* edition of Brealey and Myers. You may also use the seventh, eighth, ninth, or tenth editions of this text. The page numbers for earlier editions are in separate postings. The substantive changes in the textbook are slight among these editions, but the final exam problems are based on the eleventh edition.

{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.}

Read the introduction on page 440. As Brealey and Myers say: "We're shooting for a theory combining MM's insights plus the effects of taxes, cost of bankruptcy and financial distress..." (last paragraph of the introduction).

Read section 18.1, "Corporate Taxes," on pages 449-452. Brealey and Myers do an excellent job of removing the complications of corporate taxes and presenting the theory. Know Table 18-2 on page 449, and the equations on pages 449-450. The return on the debt drops out of the last equation.

Skip section 18.2, "Corporate and Personal Taxes," on pages 452-454. A full analysis of all taxes, both corporate and personal, with emphasis on the difference between taxes on capital gains and stock dividends, is necessary to analyze capital structure. But tax analysis is difficult, and it detracts from the concepts. If you deal with tax effects on capital structure, you must learn this material, but it is not tested on the final exam for this course.

Read section 18.3, "Costs of Financial Distress," on pages 455-458, skipping the sections "Evidence on Bankruptcy Costs" on page 458 and "Direct vs Indirect Costs of Bankruptcy" on pages 458-459. Quantifying the cost of bankruptcy is not easy. It is low for insurers (both life and property-casualty) and enormous for firms like Google, Apple, Amazon, and Yahoo, whose values might disappear if the firms declared bankruptcy. These firms have great intangible assets: consumers are accustomed to using Google search, but they will switch to another search engine if Google is not around. In contrast, the assets of insurers are marketable securities. The bonds and stocks in the investment portfolio don't lose value if the insurer becomes insolvent.

Read the sections "Financial Distress Without Bankruptcy" on page 459, "Debt and Incentives" on pages 459-460, "Risk Shifting: The First Game" on pages 460-461, and "Refusing to Contribute Equity Capital: The Second Game," on pages 461-462. Skip the section "And Three More Games, Briefly," on page 462. The first two games have strong incentives; the next three games are less plausible. Read the section "What the Games Cost" on pages 462-464; the example shows why this material is important.

Read the section "Costs of Distress Vary with Type of Asset" on pages 464-465 and the section "The Trade-off Theory of Capital Structure" on pages 465-467. These are important sections; the trade-off theory is the mainstream view. It is not perfect (that is, it can not explain everything), but it does as well as anything else.

The implications for insurers are evident in the capital structure changes over the past three decades. Insurers have low cost of bankruptcy, since their assets are mostly bonds. Statutory accounting does not recognize debt capital as surplus, so insurers use debt financing through holding companies and affiliates.

Read section 18.4, "The Pecking Order of Financing Choices" on pages 467-471. Skip the final sub-section, "The Bright Side and the Dark Side of Financial Slack" on page 471. The pecking order is Myers's theory, given as a presidential address to the financial analysts community many years ago.

Read "Is there a theory of optimal capital structure" on page 472.

Read the summary on pages 473-474. This summary is a good review of the chapter. Know the two equations in the summary (top and bottom of page 473).

Review problems 2, 6, and 12 on pages 474-475; problems 15, 18, and 19 on page 476.