

GESTÃO FINANCEIRA I & GESTÃO FINANCEIRA

CADERNO DE EXERCÍCIOS 3

Capítulos 6 e 7

Bond Valuation & Stock Valuation

**(de BERK, DEMARZO e HARFORD'S "FUNDAMENTALS OF
CORPORATE FINANCE")**

LICENCIATURA

2015-2016

Chapter 6

Bond Valuation

- 6-4. The following table summarizes prices of various default-free, zero-coupon bonds (expressed as a percentage of face value):

Maturity (years)	1	2	3	4	5
Price (per \$100 face value)	\$95.51	\$91.05	\$86.38	\$81.65	\$76.51

- Compute the yield to maturity for each bond.
 - Plot the zero-coupon yield curve (for the first five years).
 - Is the yield curve upward sloping, downward sloping, or flat?
- 6-5. The current zero-coupon yield curve for risk-free bonds is as follows:

Maturity (years)	1	2	3	4	5
YTM	8.23%	8.50%	8.67%	8.95%	9.05%

- What is the price of a \$1000 face value two-year, zero-coupon, risk-free bond?
 - Suppose there is a three-year risk-free bond, with face value of \$1000 and annual payment of 9% coupons. If this bond is trading at \$980, do you think there is an arbitrage opportunity? Explain.
- 6-10. The yield to maturity of a \$1000 bond with a 7% coupon rate, semiannual coupons, and two years to maturity is 7.6% APR, compounded semi-annually. What must its price be?

- 6-24. Consider the following four bonds:

Bond	Coupon Rate (annual payments)	Maturity (years)
A	0%	15
B	0%	10
C	4%	15
D	8%	10

Which of the bonds is most sensitive to a 1% drop in interest rates from 6% to 5% and why? Which bond is least sensitive? Provide an intuitive explanation for your answers.

- 6-29. HMK Enterprises would like to raise \$10 million to invest in capital expenditures. The company plans to issue five-year bonds with a face value of \$1000 and a coupon rate of 6.5% (annual payments). The following table summarizes the yield to maturity for five-year (annualpay) coupon corporate bonds of various ratings:

Rating	AAA	AA	A	BBB	BB
YTM	6.20%	6.30%	6.50%	6.90%	7.50%

- a. Assuming the bonds will be rated AA, what will the price of the bonds be?
- b. How much total principal amount of these bonds must HMK issue to raise \$10 million today, assuming the bonds are AA rated? (Because HMK cannot issue a fraction of a bond, assume that all fractions are rounded to the nearest whole number.)
- c. What must the rating of the bonds be for them to sell at par?
- d. Suppose that when the bonds are issued, the price of each bond is \$959.54. What is the likely rating of the bonds? Are they junk bonds?

Chapter 7

Valuing Stocks

- 7-4. Assume Evco, Inc. has a current price of \$65 and will pay a \$2.5 dividend in one year, and its equity cost of capital is 12%. What price must you expect it to sell for right after paying the dividend in one year in order to justify its current price?
- 7-6. Anle Corporation has a current price of \$20, is expected to pay a dividend of \$1 in one year, and its expected price right after paying that dividend is \$22.
- a. What is Anle's expected dividend yield?
 - b. What is Anle's expected capital gain rate?
 - c. What is Anle's equity cost of capital?
- 7-12. Summit Systems will pay a dividend of \$2.30 this year. If you expect Summit's dividend to grow by 5% per year, what is its price per share if its equity cost of capital is 18%?
- 7-15. DFB, Inc., expects earnings this year of \$5 per share, and it plans to pay a \$3 dividend to shareholders. DFB will retain \$2 per share of its earnings to reinvest in new projects that have an expected return of 15% per year. Suppose DFB will maintain the same dividend payout rate, retention rate, and return on new investments in the future, and will not change its number of outstanding shares.
- a. What growth rate of earnings would you forecast for DFB?
 - b. If DFB's equity cost of capital is 12%, what price would you estimate for for DFB stock?
 - c. Suppose instead that DFB paid a dividend of \$4 per share this year and retained only \$1 per share in earnings. That is, it chose to pay a higher dividend instead of reinvesting in as many new projects. If DFB maintains this higher payout rate in the future, what stock price would you estimate for the firm now? Should DFB follow this new policy?

- 7-19. Colgate-Palmolive Company has just paid an annual dividend of \$0.96. Analysts are predicting an 11% per year growth rate in earnings over the next five years. After then, Colgate's earnings are expected to grow at the current industry average of 5.2% per year. If Colgate's equity cost of capital is 8.5% per year and its dividend payout ratio remains constant, what price does the dividend-discount model predict Colgate stock should sell for?**
- 7-25. Suppose Cisco Systems pays no dividends but spent \$5 billion on share repurchases last year. If Cisco's equity cost of capital is 12%, and if the amount spent on repurchases is expected to grow by 8% per year, estimate Cisco's market capitalization. If Cisco has 6 billion shares outstanding, to what stock price does this correspond?**