LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

GESTÃO FINANCEIRA I GESTÃO FINANCEIRA
CORPORATE FINANCE I **CORPORATE FINANCE**

CADERNO DE EXERCÍCIOS 1

Capítulos 1, 3, 4 e 5
Revision of Fundamental Concepts

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

LICENCIATURA

2016-2017

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Chapter 1

1-14. What is the difference between a public and a private corporation?

1-15. What is the difference between a primary and a secondary stock market?

1-17. Explain why the bid-ask spread is a transaction cost.

1-18. The following quote on Yahoo! Stock appeared on August 26, 2015, on Yahoo! Finance:

Yahoo! Inc. (YHOO) -NasdaqGS ≠ **Watchlist**

31.65 0.09(0.28%) 2:24PM EDT - Nasdaq Real Time Price

Prev Close:	**31.74**
Open:	**32.45**
Bid:	**31.77 x 800**
Ask:	**31.78 x 2500**
1y Target Est:	**51.06**
Beta:	**1.56**
Earnings Date:	**Oct 19 - Oct 23 (Est.)**
Day's Range:	**31.11 - 32.47**
52wk Range:	**29.00 - 52.62**
Volume:	**14,700,620**
Avg Vol (3m):	**12,547,700**
Market Cap:	**29.80B**
P/E (ttm):	**4.39**
EPS (ttm):	**7.20**
Div & Yield:	**N/A (N/A)**

Quotes delayed, except where indicated otherwise. Currency in USD

If you wanted to buy Yahoo!, what price would you pay? How much would you receive if you wanted to sell Yahoo!?

Chapter 3
Financial Decision Making and the Law of One Price

3-4. **Suppose Bank One offers a risk-free interest rate of 5.5% on both savings and loans, and Bank Enn offers a risk-free interest rate of 6% on both savings and loans.**

a. What arbitrage opportunity is available?

b. Which bank would experience a surge in the demand for loans? Which bank would receive a surge in deposits?

c. What would you expect to happen to the interest rates the two banks are offering?

3-5. **If the cost of buying a CD and ripping the tracks to your iPod (including your time) is $25, what is the most Apple could charge on iTunes for a whole 15-track CD?**

Chapter 4
The Time Value of Money

4-8. **You have just received a windfall from an investment you made in a friend's business. She will be paying you $10,000 at the end of this year, $20,000 at the end of the following year, and $30,000 at the end of the year after that (three years from today). The interest rate is 3.5% per year.**

a. What is the present value of your windfall?

b. What is the future value of your windfall in three years (on the date of the last payment)?

4-15. **What is the present value of $1000 paid at the end of each of the next 100 years if the interest rate is 7% per year?**

4-16. **Your grandmother has been putting $1000 into a savings account on every birthday since your first (that is, when you turned 1). The account pays an interest rate of 3%. How much money will be in the account on your 18th birthday immediately after your grandmother makes the deposit on that birthday?**

4-23. **A rich relative has bequeathed you a growing perpetuity. The first payment will occur in a year and will be $1000. Each year after that, you will receive a payment on the anniversary of the last payment that is 8% larger than the last payment. This pattern of payments will go on forever. If the interest rate is 12% per year,**

a. What is today's value of the bequest?

b. What is the value of the bequest immediately after the first payment is made?

4-34. **You are thinking of purchasing a house. The house costs $350,000. You have $50,000 in cash that you can use as a down payment on the house, but you need to borrow the rest of the purchase price. The bank is offering a 30-year mortgage that requires annual payments and has an interest rate of 7% per year. You can afford to pay only $23,500 per year. The bank agrees to allow you to pay this amount each year, yet still borrow $300,000. At the end of the mortgage (in 30 years), you must make a *balloon* payment; that is, you must repay the remaining balance on the mortgage. How much will this balloon payment be?**

Chapter 5
Interest Rates

5-4. **Which do you prefer: a bank account that pays 4% per year (EAR) for six years or**
- **a. an account that pays 2.0% every six months for 6 years?**
- **b. an account that pays 6.0% every 18 months for 6 years?**
- **c. an account that pays 0.25% per month for 6 years?**

5-7. **Your bank account pays interest with an EAR of 4%. What is the APR quote for this account based on semiannual compounding? What is the APR with monthly compounding?**

5-30. **If the rate of inflation is 2%, what nominal interest rate is necessary for you to earn a 4% real interest rate on your investment?**

5-34. **What is the shape of the yield curve given in the following term structure of risk-free interest rates? What expectations are investors likely to have about future interest rates?**

Term	1 year	2 years	3 years	5 years	7 years	10 years	20 years
Rate (EAR, %)	1.99	2.41	2.74	3.32	3.76	4.13	4.93

EXTRA QUESTION: What is the present value of an investment that pays $100 with certainty at the end of each of years 1, 3, and 5? If you wanted to value this investment correctly using the annuity formula, which discount rate should you use?