

University of Lisbon

ISEG



**GESTÃO FINANCEIRA II**  
**CORPORATE FINANCE II**

**Problem Set 1**

**Licenciatura – Undergraduate Course**

**1<sup>st</sup> Semester, 2017-2018**

## GESTÃO FINANCEIRA II

### PROBLEM SET I

**SUBMISSION DEADLINE:** from 12.00 H to 15:00 H at the reception desk (Miguel Lupi's Building),  
18<sup>TH</sup> October, 2017

Your report must be written using a word processor as handwritten answers may not be considered. On Aquila you can find a template with the frontpage to answer the problem set. Its usage is mandatory.

- 1) Review and comment the following statements on market efficiency (up to 6 lines)
  - a) What are puzzles and anomalies?
  - b) Briefly discuss some of the important findings of behavioral finance studies.
  - c) Give and explain an example of an anomaly or puzzle explained by Behavioral Finance.
  - d) Explain what is technical analysis and why does it contradict the Efficient Market Hypothesis.
  
- 2) Indicate whether which of the following statements situations are true or false and briefly explain why.
  - a) If stock returns follow a random walk pattern, then knowing the history of stock returns is not useful for predicting future stock returns.
  - b) When a firm announces a dividend change, or publishes its latest earnings, the major part of any price adjustment usually takes place within a few weeks of the announcement.
  - c) Consider the case of Shell Transport/Royal Dutch "Twin shares". This is an example of a market anomaly.
  - d) Prospect Theory states that individuals have the same risk attitude in the gains and in the losses domains.
  
- 3) Suppose you were asked to analyze Netflix, Inc. In the attached Excel file you can find Netflix's prices as well as the Nasdaq Index from September 2012 to September 2017.
  - a) Estimate Netflix and Nasdaq monthly returns.
  - b) Use the Market Model to estimate Netflix's Alpha and Beta. Consider the period from September 2012 to August 2017.
  - c) How well did Netflix perform in the period?
  - d) What is Netflix's abnormal return for September 2017? Comment.

- e) Assuming the CAPM is totally accurate and you decide to use it instead. The risk-free interest rate is 0.2%. Recalculate Netflix's abnormal return. Discuss eventual differences and its impact in terms of the Efficient Market Hypothesis.
- 4) Review and comment the following statements on payout policy (up to 6 lines)
- a) A retiree believes that investing in a non-dividend paying growth firm, which requires the periodic sale of stock for income, will eventually lead to a loss of all shares. Explain the flaw in this logic.
  - b) Rightists argue that increasing a firm's dividend will increase its value. Review some of the key points in their assertion.
  - c) Briefly describe the leftists' point of view on dividends and taxes.
  - d) Describe Miller and Modigliani's proposition on dividend irrelevance.
- 5) Solve the following questions concerning company X. Justify your calculations.
- a) Company X is a non-dividend paying company. Currently its stock price is €200. In one year it is expected to grow to €240. One of its competitors, Company Y, is very similar and has the same risk and the same current stock price. However, it pays dividends and the expected price in one year, immediately after paying the dividend, is €226. Assume that any of these companies pay taxes. Investors do not pay taxes on capital gains, but pay a 20% tax rate on dividends. How much is the expected dividend paid one year from today by Company Y?
  - b) Company Y has decided to launch a share repurchase program to replace the old dividend program. The total payout will still be €2000 per year, corresponding to a 100% payout rate. The firm has 200 shares outstanding. It earns €2,000 per year and announces that it will use all €2,000 to repurchase its shares in the open market instead of paying dividends. Calculate the number of shares outstanding at the end of year 1, after the first share repurchase, if the required rate of return is 10%.