Universität Hamburg
DER FORSCHUNG | DER LEHRE | DER BILDUNG

School of Business
Major Finance and Insurance
Chair of Corporate Finance and Ship Finance
Prof. Dr. Wolfgang Drobetz

Examination

Corporate Finance

Mock Exam

Personal information:

Name: ______________________ First name: ______________________

Date of birth: __ __ / __ __ / __ __ __ __ Semesters: __ __ Student number: __ __ __ __ __ __ __ __

E- Mail: ____

Instructions (please read carefully):

- During the exam, you are permitted the use of (i) a non-programmable calculator and (ii) an English dictionary. Further materials are not allowed.
- The examination document consists of 10 pages (including front page) and contains 9 questions.
- The examination is scheduled for 60 minutes.
- Questions can be answered either in English or German (stick to one language over the entire exam).
- Answer all questions and show necessary work. Please be brief but precise, explain symbols, and outline your calculations. If necessary assumptions are missing, make reasonable economic assumptions to answer the question.

Declaration:

I hereby declare the veracity of all personal information provided and confirm that I carefully read the given exam instructions.

Date: __ __/__ __/__ __ __ __ Signature: ______________________

Completed by the chair:

Section	1	2	3
Points			

Section 1: Mixed questions (20 Points)

a)

Consider a pooled credit market with two types of firms, “good” and “bad” firms. Bad firms face higher interest rates than good firms. Managers of the firms (insiders) know whether their firm is good or bad. Banks (outsiders) cannot observe whether a firm that asks for a credit is good or bad. Outline how this pooled credit market eventually breaks down.

(6 Points)

b)

Briefly explain the agency conflict between shareholders and bondholders of a firm. Focus on their diverging objectives. What is the role of dividends in this conflict? Why would bondholders want to restrict a firm's dividend policy?

(6 Points)

c)

Briefly describe the free rider problem. Why and when does it occur? How can an investor get around the free rider problem?

(8 Points)

Section 2: Raising funds (20 Points)

a)

Consider a firm that is financed through equity and debt. The firm has two classes of debt outstanding, junior and senior debt. The face value of the outstanding senior debt is 250.000 €. The face value of the outstanding junior debt is 150.000 €. Calculate the market value of senior debt, junior debt and equity for thee potential firm values:

i. Firm value = 150.000 €
ii. Firm value = 350.000 €
iii. Firm value = 500.000 €

(6 Points)

b)

Describe the difference between primary and secondary offerings in the context of an initial public offering (IPO). Briefly provide three benefits of an IPO in general.

(5 Points)

c)

Briefly outline the phenomenon of IPO underpricing. Explain how the existence of informed and uninformed market participants and their bidding behavior may explain the underpricing of IPOs.

(9 Points)

Section 3: Capital structure (20 Points)

a)

Briefly describe the trade-off theory and the pecking order theory. How is the leverage ratio determined under the assumptions of each theory? Does either of the theories imply a target leverage ratio for firms?

(8 Points)

b)

Briefly explain the difference between direct and indirect bankruptcy costs.

(3 Points)

c)

Consider a firm with debt outstanding at a face value of 66.000 €. The firm value at the end of the next year will be either 70.000€ or 200.000 €. Earnings of the period are either 0 € in the first case or 140.000 € in the second case. Both states are equally likely to occur. The firm has 250 shares outstanding.

What is the market value of the equity and debt of the firm? What is the stock price? Calculate expected earnings-per share (EPS) and the expected price-earnings-ratio (P/E ratio). For the sake of simplicity, the discount rate for debt and equity is 0 (zero) and investors are risk-neutral.

(9 Points)