UNIVERSIDADE CATÓLICA PORTUGUESA

FACULDADE DE CIÊNCIAS ECONÓMICAS E EMPRESARIAIS

MSc. in Business Administration

April/May 2008

COURSE: Advanced Corporate Finance

EXAM

TIME: 2h 30m

You will have to answer Questions I and II, and choose between Questions III and IV

Lecturer: Maria Manuela Athayde Marques

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I (60 m.)

(8 marks)

(20%) 1. What kind of deal does the text below refer to? Please identify the players involved in such a deal, and characterize it in terms of objective, type, placement and subscription.

(20%) 2. There are several anomalies that have been reported associated with deals of this kind. One of them has to do with the price the shares are normally offered for subscription in the deal. Describe this anomaly and present the major available explanations for its occurrence (please, be succinct!).

(20%) 3. How does the main content of the text below fit into your previous answer? Please, do not forget to mention what went wrong in the Postbank's deal.

(20%) 4. The two tables at the end of the text present other data concerning the same kind of deals. What information is provided by each one of these tables? What possible reason may be advanced to explain for the observed behaviors?

(20%) 5. Given the table on the right, which period is most likely to have showed higher under-pricing, and therefore to have been a more favorable period for the investor? Please, justify.

II (60 m.)

(8 marks)

XYZ Investments (**XYZ**) is an ambitious firm in its activity sector. For the purpose of allowing **XYZ** to access a broader universe of investors and tap vaster financial resources much needed for its investment program abroad, **ABC Holdings** (**ABC**), sole shareholder of **XYZ**, decided one year ago to take it public through a new equity issue (cash offering).

The deal involved increasing outstanding shares of **XYZ** from 5 to 7 million. Direct transaction costs associated with the deal approximated 1% of the gross proceeds while under-pricing approximated 10%.

In the year preceding the IPO, **XYZ** had total free cash flows of EUR. 2.5M.. The company was expected then to keep growing at a yearly rate of 3.65% in perpetuity. The firm's weighted average cost of capital (WACC) was 11% for an optimal debt ratio (D/V) of 30%. Income tax rate was 25% and the market cost of debt at the optimal debt ratio was 8% for **XYZ**. At the time of the IPO, last year's dividend had already been paid.

(20%) 1. Knowing that **XYZ** shares closed its first trading day 5% above the company's estimated fair value, calculate the price **XYZ** shares were offered to the public in the IPO. What was the % discount in relation to fair value?

(10%) 2. How much money did **XYZ** left on the table with the IPO? What was **ABC**'s total NPV with the deal at the end of the first trading day? (Assume that **ABC** didn't buy any shares in the equity issue)

One year over the IPO, **ABC** took for approval a new equity offering to **XYZ**'s AGM. The conditions of the deal were approved with the majority of votes in the company's Annual General Meeting. These conditions were the following:

- A rights issue of 3 million shares;
- Offer price: EUR. 6.0;
- **ABC** would buy all the shares that would remain unsubscribed by the remaining shareholders;

(10%) 3. Knowing that **XYZ**'s market price at the time was EUR. 4.50 and that the yearly dividend (EUR. 0.41 per share) had already been paid, calculate the **theoretical value of the subscription right of the new shares**, assuming that no information was given to the market concerning the final purpose of the new equity issue (ignore any transaction costs).

(20%) 4. Calculate the **TSR** for a shareholder of **XYZ** in case: (a) he/she exercised the right; **(b)** he/she did not exercise the right.

(20%) 5. **Comment the previous results** and determine the **theoretical NPV of the investment** to be financed with the net proceeds from the equity issue that would have made shareholders indifferent to any of the two alternatives - to exercise or not to exercise the right.

(20%) 6. On the basis of the NPV calculated in the previous question, and assuming the market would incorporate that NPV in the company's share price, what should have been the final price of **XYZ**'s shares if the investment were to be alternatively totally financed with perpetual debt, at a cost of 8%/year, over its entire life? Assume the project has the same business risk as the firm and is also expected to grow forever at the same annual rate.

III (30 m.)

(4 marks)

ALDEWAY Industry has EUR. 200M. in cash on hand. The company is entirely equity financed. With this cash, it can take on one of two projects - A or B – which cost EUR. 100M. each, or both. If the economy is favorable, project A will pay EUR

120M. and project B will pay EUR. 101M.. If the economy is unfavorable, project A will pay EUR. 60M. and project B will pay EUR. 101M.. Assume that investors are risk neutral, there are no taxes or bankruptcy costs, the riskless interest rate is zero, and the probability of each state is 50%.

(20%) 1. Should the company accept project A, project B or both? Justify.

(40%) 2. Would your answer differ if you were told that in the meantime **ALDEWAY** had invested EUR. 10M. of its cash in the set up of a wholly owned subsidiary, financed 10% with equity provided by the company and 90% with non-recourse debt (**Note**: support your answer with the necessary calculations of value creation, and the construction of market value and book value balance-sheets both at the parent and the subsidiary level)? Please, justify.

(20%) 3. How do the different capital structures at the parent and subsidiary level affect their future investment, operating and financing decisions? Please elaborate in no more than half a page.

(20%) 4. Why are debt holder – equity holder incentive problems less severe for firms that borrow short term rather than long term?

IV (30 m.)

(4 marks)

Please answer the questions below:

(25%) 1. Which of the following 4 industries should have higher/lower optimal debt levels according to the Tradeoff Theory? Please explain!

a) Tobacco firms.

b) Accounting firms.

c) Mature restaurant chains.

d) Cell phone manufacturers.

(25%) 2. Firms that do not move to their optimal debt ratios are not maximizing firm value. Is this statement true? Why or why not?

(25%) 3. Firms that can issue corporate bonds should do so, rather than use bank debt, because interest rates on corporate bonds are always lower than those on bank debt. True or false? Please explain.

(25%) 4. Why might a firm that can issue securities to the market decide to make a private placement instead?