Universidad de Barcelona

3rd course: Finance I ***Professor: Altina Sebastián González***

Exercises 3: External and internal equity financing

1. In 2015, the Pandora Box Company made a rights issue offering its existing shareholders the right to buy one new share at 5€ for every four shares held. Before the issue there were 10 million shares outstanding and the share price was 6€.
   a. What was the total amount of new money raised?
   b. The rights issue gave the shareholder the opportunity to buy one new share for less than the market price. What was the value of this opportunity?
   c. What was the prospective stock price after the issue?

2. Ivanhoe Mines needs C$1.2 billion of new equity. Market price C$24.73. Ivanhoe Mines decides to raise additional funds by offering the right to buy 3 new shares for 20 at C$13.93 per share. With 100% subscription, what is value of each right?

3. Our company has got an EBITDA to 120.000 €. The Corporate Tax is a 25% on pretax profit. Our Pay-out Policy is 45%. We record a depreciation expense to 30.000€. There are no provisions, but there is a negative financial result to 4.000 €. As we consider depreciation as an internal financial source, can you calculate how much is the retained cash-flow due to this depreciation expense?

4. MARGIN CALL S.A. shows the following Capital Structure:
   Owner's equity: 5
   Self-financing: 3 (Reserves from retained earnings)
   Debt: 10
   The company wants to maintain this structure unchanged. At the end of the year, a retained profit to 1,2 is recorded in the accounting records.
   Using the self-financing multiplier. Should the company make some additional decisions to maintain its Capital Structure?

MULTIPLE CHOICE QUESTIONS:

1. If depreciation is $600,000 and the marginal tax rate is 35 percent, then the tax shield due to depreciation is
   a. $210,000
   b. $600,000
   c. $390,000
   d. The answer cannot be determined from the information given

2. The change in a firm's retained earnings is
   a. the amount of cash that the firm has saved up
   b. the difference between the market price of the stock and the book value
   c. the difference between the net income earned and the dividends paid during a year
   d. the amount of directly contributed equity capital in excess of par value

3. Internally generated cash is calculated as
   a. retained earnings minus interest payments
   b. retained earnings plus interest payments
   X retained earnings plus depreciation
   d. retained earnings minus depreciation

4. A firm has $100 million in current liabilities, $200 million in long-term debt, $300 million in stockholders' equity, and total book assets of $600 million. There are 100 million shares outstanding with a share price of $16. Calculate the debt ratio for the firm.
   a. 11,1 percent
   b. 66,7 percent
   X 50 percent
   d. 33 percent

5. The following are characteristics of preferred stock except it
   a. pays fixed dividends.
   b. pays fixed dividends and can demand payments of cumulative dividends.
   X has voting rights.
   d. can demand payments of cumulative dividends.

6. Image Storage Corporation has 1,000,000 shares outstanding. It wishes to issue 500,000 new shares using a (North American) rights issue. If the current stock price is $50 and the subscription price is $47/share, what is the value of a right?
   a. $0.40/right
   b. $5/right
   c. $2.50/right
   X $1/right

3)

DEPRECIATION = 30.000 $

EBITDA	120.000	120.000
D	-30.000	—
EBIT	90.000	120.000
FINANCIAL RESULT	-4.000	-4.000
EBT	86.000	116.000
25% TAX	21.500	29.000
NET INCOME	64.500	87.000
DIV 45%	29.025	39 150

22.500
10.125

Δ RETAINED CASH-FLOW

↳ (7500) + (10.125) = 17.625

↳ DIVIDENDS VARIATION

ΔTAXES = 30000 × 25% = 7500 $

4)

DEBT = 10
EQUITY = 5
RESERVES 3

→ LIABILITIES = 18

(LEVERAGE) = 10/18 = 55.56 %

↳ DEBT/LIABILITIES

AT THE END OF THE YEAR.

EQUITY = 5
DEBT = 10
RESERVES = 3 + 1.2 = 4,2

10 / 19,2 = 52,08 % ?

55.56 %

$$\Delta L = \frac{\Delta R}{1 - D_{RATIO}} = \frac{1.2}{1 - 0.55} = 2.7$$

18 + 2.7 = 5 + 4,2 + 10 + ΔD

ΔD = 1.5 → LET'S CHECK $\frac{10 + 1.5}{18 + 2.7} = 55,56\ \%$