Raising Equity Capital - Exercises

Jean-Charles Bagneris - v2019.03.1

1. Starware Software was founded last year to develop software for gaming applications. The founder initially invested $800,000 and received 8 million shares of stocks. Starware now needs to raise a second round of capital, and it has identified a venture capitalist who is interested in investing. This venture capitalist will invest $1 million and wants to own 20% of the company after the investment is completed.

   a. How many new shares must the venture capitalist receive to end up with 20% of the company? What is the implied price per share of this funding round?

   b. What will the value of the whole firm be after this investment (the post-money valuation)?

2. In 2005, you founded your own company. You invested $100,000 of your money and received 5 million shares of Series A preferred stock. Your company has since been through three additional rounds of financing.

Year	Round	Price $	Number of Shares
2006	Series B	0.50	1,000,000
2007	Series C	2.00	500,000
2009	Series D	4.00	500,000

   a. What is the pre-money valuation for the Series D funding round?

   b. What is the post-money valuation for the Series D funding round?

   c. Assuming that you own only the Series A preferred stocks (and that each share of all series of preferred stocks is convertible into one share of common stock), what percentage of the firm do you own after the last funding round?

3. Roundtree Software is going public using an auction IPO. The firm has received the following bids:

Price ($)	Number of shares
14.00	200,000
13.80	300,000
13.60	500,000
13.40	1,000,000
13.20	1,200,000

   a. Assuming Roundtree would like to sell 1,800,000 shares in its IPO, what will the winning auction offer price be? (the best bids have priority, a bidder cannot pay more than what he offered, bids below the auction price will not be served)

   b. Suppose you bid for 2,000 shares at 13.40. How many shares will you finally get from the IPO?

4. Three years ago, you founded Outdoor Recreation, Inc., a retailer specializing in the sale of equipment and clothing for recreational activites such as camping etc. So far, your company has gone through three funding rounds:

Round	Date	Investor	Shares	Share price ($)
Series A	Feb. 2002	You	500,000	1.00
Series B	Aug. 2003	Angels	1,000,000	2.00
Series C	Sept. 2004	Venture capital	2,000,000	3.50

It is currently 2007 and you need to raise additional capital to expand your business. You have decided to take your firm public through an IPO. You would like to issue an additional 6.5 million new shares through this IPO. Assuming that your firm successfully completes its IPO, you forecast that 2007 net income will be $5.7 million.

   a. Your investment banker advises you that the prices of other recent IPOs have been set such that the P/E ratios based on 2007 forecasted earnings average 20.0. Assuming that your IPO is set at a price that implies a similar multiple, what will your IPO price per share be?

   b. What percentage of the firm will you own after the IPO?

5. On January 20, Metropolitan Inc. sold 8 million shares of stock in an SEO. The current market price of Metropolitan at the time was $42.50 per share. Of the 8 million shares sold, 5 million shares were primary shares being sold by the company, and the remaining 3 million shares were being sold by the venture capital investors. Assume the underwriter charges 5% of the gross proceeds as an underwriting fee (which is shared proportionately between primary and secondary shares).

   a. How much money did Metropolitan raise?

   b. How much money did the venture capitalists receive?

6. MacKennie Corporation currently has 10 million shares of stock outstanding at a price of $40 per share. The company would like to raise money and has announced a rights issue. Every existing shareholder will be sent one right per share of stock that he or she owns. The company plans to require five rights to purchase two shares at a price of $32 per share.

   a. Assuming the rights issue is successful, how much money will the company raise?

   b. What would be the value of one right?

   c. Suppose you own 200 shares and would like to buy 100 new ones through the SEO. How much cash do you need? Describe the operations involved.

7. VN Xoy company wants to raise $10,000,000 (net proceeds) through a rights offer. Current market price of the share is $24, and the underwriter advises Xoy's CFO that an issuing price of $18.85 should be correct and would lead the SEO to be a success. The company has 11,000,000 shares outstanding. The underwriter's fee is 3.545% of the gross proceeds of the SEO.

   a. How many shares should Xoy sell through the rights issue?

   b. How many rights would then be needed to buy a new share?

   c. What is the right's theoretical value?

   d. Describe the available basic strategies to Xoy's shareholders.

Creative Commons BY-NC-SA 4.0 Intl License