Venture Capital Valuation: Practice Problems

Basic Rules for Calculating the Value of a Company Based on Capital Structure

1. Pre-money valuation = Share outstanding before financing x Price per share
2. Post-money valuation = Shares outstanding after financing x Price per share
3. Post-money valuation = Pre-Money Valuation + Amount Invested
4. Ownership % = number of shares owned/total shares outstanding
   or
   Ownership% = amount invested/post-money valuation

Note: for purposes of this exercise, assume all calculations are made on a “fully-diluted” basis. “Fully-diluted” means calculating valuation and/or ownership as if all possible shares of common stock were issued. This includes assuming the conversion of all preferred stock to common stock, and the exercise of all options and warrants to purchase common stock.

Questions:

1. The Series A and Series B capitalization of the Lazier Company is attached in Figure 1. Fill in the boxes on Figure 1 by answering the following questions:
   a. What was the pre-money and post-money valuation of the Series A financing?
   b. What is the share price of the Series B financing? What is the Pre-money and Post-money valuation of the Series B financing?

2. As shown in Figure 2, Venture Firm 3 has proposed investing $2.5 million dollars as a part of a $5 million round of Series C financing for the Lazier Company at a $15 million pre-money valuation. Venture Firms 1 and 2 will split the remaining $2.5 million evenly. Fill in the boxes on Figure 2 by answering the following questions:
   a. What is the share price that Venture Firm 3 has proposed?
   b. What is the post-money valuation of the Series C round of financing?
   c. What percentage of the company will be held by each group of shareholders after the Series C?
d. What percentage of the company will be held by each class of stock after the Series C?

3. The Lazier Company is an early stage medical device company inventing catheters and related products to threat patients with coronary artery disease. The company is introducing some minor products in mid-2000, but expects to launch its more important products in late 2000 and early 2001. The projected profits and losses are shown in Figure 3.

The company estimates that there is about a $200-250 million annual market for products like the one it is offering. There are about 5 major competitors already in the market, the largest of which has about a 30% market share based on a slightly superior product over its competitors. Management believes that the company’s products are a significant improvement over the existing products in the market. The valuations of its major competitors are shown in Figure 4. Figure 5 shows some comparable recent venture capital financings.

Is Venture Firm 3 overpaying for this investment? What multiple of its money and what rate of return can Venture Firm 3 expect?