Quiz 2: Valuation

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. Limroth Enterprises is a family-run, publicly traded company that expects to generate $60 million in after-tax operating income next year on capital invested of $1 billion. The firm has a cost of capital of 10% and expects to maintain its current return on capital, while growing 2% a year in perpetuity.
   a. Estimate the value of the operating assets of the firm. (2 points)

   b. Now assume that Limroth Enterprises has $100 million in cash and marketable securities and that you believe that there is a 60% chance that management will reinvest this cash to generate returns to similar to what they are earning on their existing operating assets (in investments with a similar risk profile); there is a 40% probability that the cash will remain invested in commercial paper and T.Bills, earning 1%. How much value would you attach to the cash? (2 points)
2. You have just valued the operating assets of Giovanni Inc. to be $1.2 billion, using its consolidated financial statements to estimate free cash flows to the firm and discounting back at the appropriate cost of capital. You have been provided with the following additional information:

- Giovanni owns 75% of Lonza Enterprises; this is the holding that is fully consolidated in Giovanni’s financials and the minority interest in this holding, reported on the balance sheet, is $100 million. Lonza Enterprises is expected to generate $40 million in after tax cash flow next year, growing at 2% a year, with a cost of capital of 10%.
- Giovanni has $300 million in debt outstanding and a cash balance of $100 million; both items are from the consolidated financial statements.
- Giovanni has 100 million shares outstanding. It also has 20 million employee options that are outstanding, with an estimated value of $5/option.

Estimate the value per share at Giovanni Inc. (3 points)
3. You are trying to value Drake Drugs, a pharmaceutical company, and have computed the value for the operating assets to be $1 billion, based upon the assumption that the firm is in stable growth, growing 2% a year, with a cost of capital of 10% and a return on capital of 20%. For the cash flows and the growth rate, you used conventional accounting statements to estimate a reinvestment rate and the return on capital. If you capitalize R&D, you expect your reinvestment rate to double and your return on capital to drop to 12.5%. What effect will R&D capitalization have on the estimated value of the operating assets, assuming that the firm is still in stable growth?