Session 14: Post class test solutions

1. **a. – 50%**
   Net Cap Ex = 0 – 3 million = - 3 million
   Total reinvestment = -3 million – 2 million = - 5 million
   Reinvestment rate = Reinvestment/ EBIT (1-t) = -5/10 = -50%
2. **b. $3.60/share**
   Expected value per share as going concern = (100+20-60)/10 = $6/share
   Expected value per share in liquidation = 0.25 (100) +20-60 = $0/share (limited liability)
   Expected value per share = 0.6($6.00) + 0.40 (0) = $3.60
3. **d. $3.10/share**
   Expected value per share as going concern = [10/(.08-.030} / 50 = $4/share
   Expected value per share nationalized = $50/50 = $ 1 per share
   Expected value per share = 0.7 ($4) + 0.3 ($1) = $3.10/share\
4. **c. Bank C: ROE = 10%, Expected growth rate = 2%, Payout ratio =80%**
   For the dividend discount model to work, the dividends per share have to be equal to the FCFE. That will happen when the payout ratio = 1 – g/ ROE
   In this example, Payout ratio = 1- .02/.10 = .80 or 80%
   Companies a & b will be valued too low and company d will have too high a value.
5. **b. $1 million**. To estimate the potential dividends, you first estimate the loans and net income next year:
   - Expected loans next year = 500 (1.20) = $600 million
   - Expected net income = (10/500)* 600 = $12 million
   - Regulatory capital next years = $600 *.06 = $36 million
   - Increase in regulatory capital = $36 - $25 = $11 million
   - Potential dividend = $12 million - $1 million = $11 million