THE UNIVERSITY OF MELBOURNE

FNCE10002 Principles of Finance
Semester 1, 2019

Capital Structure and Payout Policy II
Suggested Answers to Tutorial Questions for Week 11

Note that detailed answers to tutorial questions from Part II will only be provided in tutorials. The following abridged answers are intended as a guide to those detailed answers. This policy is in place to ensure that you attend your tutorial regularly and receive timely feedback from your tutor. If you are unsure of your answers you should check with your tutor, a pit stop tutor, online tutor or me.

While detailed answers to Part I appear below, if you are not sure of the answers to these questions please ask your tutor in the following week's tutorial.

Part I – Answers Submitted to Your Tutor

A. Problems

A1. The question assumes that earnings before interest (EBI) remains constant in perpetuity. The value of the unleveraged firm is the present value of the after-tax earnings, which is a perpetuity.

$$V_U = \frac{EBI(1-t_c)}{r_O}.$$

$$V_U = \frac{600000(1-0.30)}{0.15}.$$

V_U = \$2,800,000.

$V_L = V_U + t_c D$.

V_L = 2800000 + 0.30(1500000) = \$3,250,000.

A2. a) 1000000000/20000000 = \$50 per share.

b) 100000000/50 = 2 million shares.

c) In a perfect capital market the price right after the repurchase should be the same as the price immediately before the repurchase. So, the price will be \$50 per share.

A3. a) Delta's payout ratio for 2017 was 40% (= 1.00/2.50)

b) The same as in 2017, $1.00 per share in both years.

c) Delta's dividend payment in 2018 was $1.20 per share [= 0.40(3.00)] under a constant payout ratio policy. It will be the same in 2019 as the earnings per share are unchanged.

Part II – Submission of Answers Not Required

B. Short Answer Questions

B1. a) False. See your tutorial notes for further details.

b) False. See your tutorial notes for further details.

B2. A software development company would face higher costs of financial distress than the hotel chain. See your tutorial notes for further details.

B3. The MM dividend irrelevance hypothesis is not inconsistent with a share valuation model based on discounting future dividends. See your tutorial notes for further details.

C. Problems

C1. a) Payoff for Project 1: $2,020,000.

Payoff for Project 2: $1,200,000.

b) See your tutorial notes.

C2. a) AVE's dividend payment per share is $1.25 per share for the year.

b) See your tutorial notes.

C3. a) Current share price = $30.

b) Ex-dividend share price = $25.

c) Number of shares repurchased = 1.667 million.

Share price after repurchase = $30.

C4. a) The dividend payoff is $0.50 on a per share basis. In a perfect capital market the price of the shares will drop by this amount.

b) $15.

c) In perfect capital markets both decisions result in the same outcome for shareholders.