THE UNIVERSITY OF MELBOURNE

FNCE10002 Principles of Finance
Semester 1, 2019

Review of the Mid Semester Exam
Tutorial Questions for Week 6

*This tutorial reviews selected questions from the mid semester exam and includes some follow-up discussion questions. The answers to these questions do **not** need to be submitted. Note that there were different versions of the exam and the questions included may not be the ones you answered on your version of the exam. Please make sure that you have worked through these (and the follow-up) questions and are prepared to discuss them if called upon by your tutor. Detailed answers to these questions will only be provided in tutorials. Brief answers will be provided via the LMS after a time lag. This policy is in place to ensure that you attend your tutorials regularly and receive timely feedback from your tutor. If you are unsure of any answer you should check with your tutor, a pit stop tutor, online tutor or me. Also, please come prepared with questions related to the material covered to date as part of this tutorial will be a review (via Q&A) of the previous material covered in lectures and tutorials.*

1. In the context of the interest rate risk associated with coupon paying bonds, which of the following statements is/are *most likely* to be **true**?

   I. The probability of interest rates rising over a longer time horizon is higher than over a shorter time horizon.
   II. A given rise in the interest rate will have a larger effect on the cash flows from a shorter maturity bond than a longer maturity bond.

   A. I only.
   B. II only.
   C. Both I and II.
   D. Neither I nor II.

   Follow-up discussion question

   1.1 All else being the same, would a zero coupon bond's price be more or less sensitive to interest rate movements than an otherwise similar coupon-paying bond? *Explain*.

   MORE SENSITIVE → ONE CASH

2. INR Ltd's *current* earnings per share is \$2.00 and this is expected to grow at 5% p.a. for the foreseeable future. Its required rate of return on equity has been estimated to be 9% p.a. INR Ltd has a policy of reinvesting 40% of its earnings. The present value of INR Ltd's growth opportunities is **closest** to:

   A. \$7.78.
   B. \$8.17.
   C. \$11.11.
   D. \$12.11.

   $E0(1+g) - 1$

Follow-up discussion question

2.1 Would an increase in the payout ratio necessarily increase the firm's present value of growth opportunities? *Explain*.

3. One year ago, Media Associates Ltd issued bonds maturing in 5 years with an annual coupon rate of 7% at par. The company has revised its advertising revenue forecast, and it is quite bleak compared with the prevailing forecast at the time of the bonds were issued. As a result, investors now require a return of 9% p.a. on these bonds. The price at which the bonds should be trading now is **closest** to:

A. $92.22.
B. $93.52.
C. $106.77.
D. $108.20.

Follow-up discussion questions

3.1 What was the yield to maturity when the bonds were issued? (*No calculations needed*.)

3.2 How do we know that the bonds will be selling at a discount *without* doing any calculations?

3.3 Would the bonds be selling at a discount or premium if the yield to maturity now was 6% rather than 9%? (*No calculations needed*.)

4. You have been asked by the chief financial officer of your company to estimate what the company's share price will be at the end of four years from today. Your company has *recently* paid a dividend of $1.00 which is expected to grow at 5% p.a. over the foreseeable future. If the company's required rate of return on equity is 10% your price estimate at the end of year 4 will be **closest** to:

A. $20.00.
B. $21.00.
C. $24.30.
D. $25.50.

Follow-up discussion question

4.1 Given the price at the end of year 4 how would you calculate the price today *without* using the constant dividend growth model?

B 5. HPL Ltd has recently issued bonds paying a fixed annual coupon of 8% p.a. and maturing in 10 years' time. The yield to maturity on these bonds is 10% p.a. If market interest rates rise unexpectedly, what is *most likely* to happen to the price of the bonds?

A. The bonds will now trade at par.
B. The bonds will now trade at a discount.
C. The bonds will now trade at a premium.
D. One cannot say anything about the price of the bonds without additional information.

Follow-up discussion question

5.1 What would your answer be if interest rates had *fallen* instead of rising?