FIN200 – Principles of Finance

Assignment I

Dear Students,

Please find bellow the questions for the first assignment. This is an individual assignment and although I encourage you to discuss it with classmates, you are expected to submit your works individually before the deadline. Please try to follow the guidelines (e.g. word count) where appropriate and as much as possible. You are expected to submit all of your answers in one file prior to the stated deadline (in word or pdf).

Q1. Chose one financial intermediary from each type of non-banking institutions (long-term saving institutions, risk spreaders and risk takers) and explain how they channel household savings into financial investment (200 words max)

Q2. Gordons plc has an annual turnover of £3 million and a pre-tax profit of £400,000. It is not quoted on a stock exchange and the family owning all the shares has no intention of permitting the sale of shares to outsiders or providing more finance themselves. Like many small and medium-sized firms, Gordons has used retained earnings and a rolled-over overdraft facility to finance expansion. This is no longer seen as adequate, especially now that the bank manager is pushing the firm to move to a term loan as its main source of external finance.

You, as the recently hired finance director, have been in contact with some financial institutions. The Matey hire purchase company is willing to supply the £1 million of additional equipment the firm needs. Gordons will have to pay for this over 25 months at a rate of £50,000 per month with no initial deposit.

The Helpful Leasing Company is willing to buy the equipment and rent it to Gordons on a finance lease stretching over the four-year useful life of the equipment, with a nominal rent thereafter. The cost of this finance is virtually identical to that for the term loan, that is, 13 per cent annual percentage rate.

Required. Write a report for the board of directors explaining the nature of the four forms of finance which may be used to purchase the new equipment: hire purchase, leasing, bank term loan and overdraft. Point out their relative advantages and disadvantages. (350 words max – you might want to simple create a table and explain pros and cons)

Q3. Describe, explain and illustrate how a bank could find itself insolvent. (200 words max + tables if required)

Q4. Describe and explain how investment banks assist companies wishing to raise finance. (200 words max)

Q5. Explain the following key elements to insurance: (200 words max)

(a) asymmetric information;

(b) adverse selection;

(c) moral hazard;

(d) float.

Q6. Distinguish between funded and unfunded pension schemes, and give the advantages and drawbacks of each type of pension. (150 words max)

Q7. On 1 March 2011 a company raises finance by agreeing a six-month eurodollar loan for $20 million offered at an interest rate of 2.15 per cent. Calculate the cost of the loan in dollars.

(a) on a 30/360-day count basis (180 days)

(b) on a 365-day count, actual/365 basis (183 days)

Q8. You purchase $10,000 worth of six-month US Treasury bills on the secondary market with a quoted yield per annum of 0.64 per cent. The bills have 36 days to maturity. How much would you pay? Use the actual/360-day count convention.

Q9. The annualised yield on a repo with an initial sale value of £800,000 is 1.85 per cent. The repo has 61 days until maturity. (a) What will be the repurchase price? (b) If the days to maturity are 92, what will be its future purchase price? Use a 360-day count convention throughout.

Q10. As a winner of a lottery you can choose one of the following prizes:

1) £1 million now.

2) £1.5 million at the end of five years.

3) £80,000 a year forever, starting in one year.

4) £150,000 for each of the next ten years, starting in one year.

If the time value of money is 8 per cent, which is the most valuable prize?

Q11. What is the present value of £1000 to be received in ten years' time when the interest rate (nominal annual) is 9 per cent and (a) annual discounting is used? (b) semi-annual discounting is used?

Q12. Punter buys a car on hire purchase paying five annual instalments of £2,500, the first being an immediate cash deposit. Assuming an interest rate of 8 per cent is being charged by the hire-purchase company, how much is the current cash price of the car?

Q13. Imagine that the market yield to maturity for three-year bonds in a particular risk class is 11 per cent. You buy a bond in that risk class which offers an annual coupon of 9 per cent for the next three years, with the first payment in one year. The bond will be redeemed at par (£100) in three years. How much would you pay for the bond?

Q14. A bond will pay an annual 7.5 per cent coupon until maturity (the next coupon will be paid in one year). The bond matures in six years.

(a) What will be the market price of the bond if yields to maturity for this risk class fall to 6.5 per cent?

(b) What will be the market price of the bond if yields to maturity for this risk class rise to 8.5 per cent?