

國立高雄第一科技大學 100 學年度 碩士班 招生考試 試題紙

系所別：金融理財研究所

組別：不分組

考科代碼：2442

考科：財務管理

注意事項：

- 1、本科目得使用本校提供之電子計算器。
- 2、請於答案卷上規定之範圍作答，違者該題不予計分。

Part I: 計算題(每題 10%，共 20%)

1. Consider the following fixed-floating interest rates which companies X and Y face:

	Company X	Company Y
US dollars (floating rate)	LIBOR + 0.1%	LIBOR + 0.6%
AU dollars (fixed rate)	5%	6.4%

Assume that X wants to borrow US dollars at a floating rate of interest and Y wants to borrow Australia (AU) dollars at a fixed rate of interest. If you were a financial institution, please design a swap that will make you a 0.1% gain. If the swap is to appear equally attractive to both companies, what rates of interest will X and Y end up paying? (10%)

2. NKFUST Bank has the following balance sheet (in millions):

Assets	<u>\$200</u>	Liabilities	\$150
		Equity	<u>50</u>
Total	<u>\$200</u>	Total	<u>\$200</u>

The duration of the assets is five years, and the duration of the liabilities is four years. The bank is expecting interest rates to fall from 10 percent to 8 percent over the next year.

- a. What is the duration gap for NKFUST Bank? (5%)
- b. What is the expected change in net worth for NKFUST Bank if the forecast is accurate? (5%)

Part II: 填充題(每題 3% , 共 24%)

1. NKFUST Inc. hired you as a consultant to help them estimate their cost of capital. You have been provided with the following data. (1): r_d = yield on the firm's bonds = 5% and risk premium over own debt cost = 3.5%. (2) r_{RF} = 3%, RP_M = 5%, and b = 1.2. (3) D_1 = \$1.20; P_0 = \$60.00 and g = 5% (constant). You were asked to estimate the cost of equity based on the three most commonly used methods and then to indicate the difference between the highest and lowest of these estimates. What is this difference? _____ (1)

2. The NKFUST Company just paid a dividend of \$2 per share, and that dividend is expected to grow at a constant rate of 3% per year in the future. The company's beta is 1.1, the market risk premium is 5%, and the risk-free rate is 3.5%. What is the company's current stock price? _____ (2)

3. The Federal Reserve recently shifted its monetary policy, causing NKFUST's WACC to change. NKFUST had recently analyzed the project whose cash flows are shown below. However, the CFO wants to reconsider this and all other proposed projects in view of the Fed action. How much did the changed WACC cause the forecasted NPV to change? _____ (3) (Assume that the Fed action will not affect the cash flows, and note that a project's projected NPV can be negative, in which case it should be rejected.)

	Old WACC = 10%		New WACC = 6%	
Year:	0	1	2	3
Cash flows:	-\$1,000	\$400	\$420	\$450

4. NKFUST Inc. has an unlevered beta of 1.2. The firm currently has no debt, but is considering changing its capital structure to be 50% debt and 50% equity. Its corporate tax rate is 50%, r_{RF} = 3% and the market risk premium is 5%. What is NKFUST's cost of equity? _____ (4)

5. NKFUST Inc. recently completed a 4-for-3 stock split. Prior to the split, its stock price was \$120 per share. The firm's total market value was unchanged by the split. What was the price of the company's stock following the stock split? _____ (5)

6. Six months from expiration, a put option on NKFUST Corp.'s stock that has an exercise price of \$50 is selling in the market for \$7.2. NKFUST's current stock price is \$45. What is the option premium? _____ (6)

7. Bank A offers to lend you \$10,000 at a nominal rate of 8%, simple interest, with interest paid 3-monthly. Bank B offers to lend you the \$10,000, but it will charge 9%, simple interest, with interest paid at the end of the year. What is the difference in the effective annual rates charged by the two banks? _____ (7)

8. NKFUST Industries has a bond outstanding with 5 years to maturity, a 9% coupon paid annually, and a \$1,000 par value. The bond has a 7% nominal yield to maturity, but it can be called in 2 years at a price of \$1,090. What is the bond's nominal yield to call?

 (8)

Part III: 解釋名詞題(每題 2% , 共 6%)

1. Disposition Effect 2. REITs 3. ETF

Part IV: 申論題(每題 25% , 共 50%)

1. 請說明資本結構之核心理論內容及各論點假設前提(25%)。
2. 請說明股利政策理論之不同論點(25%)。