

【財管所】

Part 1: Single-choice questions, 2% per each

- Two countries, the U.S. and England, produce only one good, wheat. Suppose the price of wheat is \$3.25 in the U.S. and is £ 1.35 in England. According to the law of one price, what should the \$: £ spot exchange rate be?
(A) \$2.4074 (B) \$2.1925 (C) \$2.4731 (D) \$2.7214
- On August 1, 2006, Zimbabwe changed the value of the Zim dollar from Z\$101/U.S.\$ to Z\$250/U.S.\$. By what percent has the U.S. dollar appreciated relative to the Zim dollar?
(A) 59.6% (B) 147.52% (C) 56.9% (D) 145.72%
- Which one of the following economic policies would the international financial markets tend to reward?
(A) Increased tariffs
(B) Reduced government ownership of private firms
(C) A system of government currency controls
(D) More government protection of infant-industries
- A firm with a corporate-wide debt/equity ratio of 1:2, an after-tax cost of debt of 7%, and a cost of equity capital of 15% is interested in pursuing a foreign project. The debt capacity of the project is the same as for the company as a whole, but its systematic risk is such that the required return on equity is estimated to be about 12%. The after-tax cost of debt is expected to remain at 7%. What is the project's weighted average cost of capital?
(A) 9.25% (B) 12.33% (C) 12.66% (D) 10.33%
- What is the value of a 9-month call with a strike price of \$45 given the Black-Scholes Option Pricing Model and the following information? Stock price \$48; Exercise price \$45; Time to expiration 0.75; Risk-free rate 5%; $N(d_1) = 0.718891$; $N(d_2) = 0.641713$; $2.71828^{-0.05 \times 0.75} = 0.9632$.

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- (A) \$2.03 (B) \$4.86 (C) \$6.69 (D) \$8.81

6. By rewarding executives with large option positions, corporations:

- (A) cause the executives to hold highly undiversified portfolios.
- (B) put the firm in a risky position to pay off the options.
- (C) cause the value of the stock to fall because the options are theft.
- (D) are really valueless because most options are never exercised.

7. The call option on a dividend paying stock compared to a non-dividend paying stock is:

- (A) more valuable because of the extra dividend payment.
- (B) equal in value because cash dividends are paid on stock only.
- (C) less valuable because cash dividends are paid on stock only.
- (D) less valuable if the dividend paying stock is in-the-money while the non-dividend paying stock is out-of-the-money.

8. Derivatives can be used to either hedge or speculate. These actions:

- (A) increase risk in both cases.
- (B) decrease risk in both cases.
- (C) spread or minimize risk in both cases.
- (D) offset risk by hedging and increase risk by speculating.
- (E) offset risks by speculating and increase risk by hedging.

9. To protect against interest rate risk, the mortgage banker should:

- (A) buy futures, as this position will hedge losses if rates rise.
- (B) sell futures, as this position will hedge losses if rates rise.
- (C) sell futures, as this position will add to his gains if rates rise.
- (D) buy futures, as this position will add to his gains if rates rise.

10. Which of the following money-market securities has no active secondary market?

- (A) Certificates of deposit (CD's)
- (B) Commercial paper
- (C) Banker's acceptances
- (D) Treasury bills

- 11.** The target cash balance is reached when:
- (A) the interest on any marketable security throw-off is maximized.
 - (B) the interest foregone from not investing in an equivalent amount of Treasury bills is minimized.
 - (C) the value of cash liquidity equals interest foregone on an equivalent amount of Treasury bills.
 - (D) the liquidity value is greater than interest foregone on an equivalent amount of Treasury bills.
- 12.** When a firm sells its accounts receivables to a financial institution, it is called:
- (A) captive financing.
 - (B) collateralization.
 - (C) securitization.
 - (D) legalization.
- 13.** If Microsoft were to acquire U.S. Airways, the acquisition would be classified as a _____ acquisition.
- (A) horizontal
 - (B) longitudinal
 - (C) conglomerate
 - (D) vertical
 - (E) complementary resources.
- 14.** A proposed acquisition may create synergy by: I. increasing the market power of the combined firm. II. improving the distribution network of the acquiring firm. III. providing the combined firm with a strategic advantage. IV. reducing the utilization of the acquiring firm's assets.
- (A) I and III only
 - (B) II and III only
 - (C) I and IV only
 - (D) I, II, and III only
 - (E) I, II, III, and IV.
- 15.** The management of Magic Mobile Homes has proposed to reorganize the firm. The proposal is based on a going-concern value of \$2 million. The proposed financial structure is \$750,000 in new mortgage debt, \$250,000 in subordinated

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debt and \$1,000,000 in new equity. All creditors, both secured and unsecured, are owed \$2.5 million dollars. Secured creditors have a mortgage lien for \$1,500,000 on the factory. The corporate tax rate is 34%. How much should the unsecured creditors receive?

- (A) \$500,000
- (B) \$667,000
- (C) \$750,000
- (D) \$1,000,000
- (E) None of the above.

16. The current spot rate is C\$1.400 and the one-year forward rate is C\$1.344. The nominal risk-free rate in Canada is 4 percent while it is 8 percent in the U.S.

Using covered interest arbitrage, you can earn an extra _____ profit over that which you would earn if you invested \$1 in the U.S.

- (A) \$.0001
- (B) \$.0033
- (C) \$.0040
- (D) \$.0833
- (E) \$.0840

17. From a tax-paying investor's point of view, a stock repurchase:

- (A) is equivalent to a cash dividend.
- (B) is more desirable than a cash dividend.
- (C) has the same tax effects as a cash dividend.
- (D) is more highly taxed than a cash dividend.
- (E) creates a tax liability even if the investor does not sell any of the shares he owns.

18. The Tinslow Co. has 125,000 shares of stock outstanding at a market price of \$93 a share. The company has just announced a 7-for-3 stock split. What will the market price per share be after the split?

- (A) \$38.27
- (B) \$39.86
- (C) \$40.40
- (D) \$46.18
- (E) \$55.80

19. Brad's Boat Company, a company in the 40% tax bracket, has riskless debt in its capital structure which makes up 30% of the total capital structure, and equity is the other 70%. The beta of the assets for this business is .9 and the equity beta is:

- (A) 0.54
- (B) 0.90
- (C) 1.13
- (D) 1.20
- (E) 1.49

20. The Webster Corp. is planning construction of a new shipping depot for its single manufacturing plant. The initial cost of the investment is \$1 million. Efficiencies from the new depot are expected to reduce costs by \$100,000 forever. The corporation has a total value of \$60 million and has outstanding debt of \$40 million. What is the NPV of the project if the firm has an after tax cost of debt of 6% and a cost equity of 9%?

- (A) \$428,571 (B) \$444,459 (C) \$565,547 (D) \$1,000,000

21. If the WACC is used in valuing a leveraged buyout, the:

- (A) WACC remains constant because of the final target debt ratio desired.
(B) flotation costs must be added to the total UCF.
(C) WACC must be recalculated as the debt is repaid and the cost of capital changes.
(D) tax shields of debt are not available because the corporation is no longer publicly traded.

22. Given the following information, leverage will add how much value to the unlevered firm per dollar of debt? Corporate tax rate: 34%; Personal tax rate on income from bonds: 20%; Personal tax rate on income from stocks: 50%.

- (A) \$ -0.050 (B) \$ -0.188 (C) \$0.367 (D) \$0.588

23. The capital structure chosen by a firm doesn't really matter because of:

- (A) taxes.
(B) the interest tax shield.
(C) the relationship between dividends and earnings per share.
(D) the effects of leverage on the cost of equity.
(E) homemade leverage.

24. The cost of capital for a firm, R_{WACC} , in a zero tax environment is:

- (A) equal to the expected earnings divided by market value of the unlevered firm.
(B) equal to the rate of return for that business risk class.
(C) equal to the overall rate of return required on the levered firm.
(D) is constant regardless of the amount of leverage.
(E) All of the above.

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- 25.** Assuming the CAPM or one-factor model holds, what is the cost of equity for a firm if the firm's equity has a beta of 1.2, the risk-free rate of return is 2%, the expected return on the market is 9%, and the return to the company's debt is 7%?
- (A) 10.4% (B) 10.8% (C) 12.8% (D) 14.4%

Part 2: Questions (50%)

- 1.** How does the market react to unexpected dividend changes? All things considered, would you expect a risky firm with significant but high uncertain growth prospects to have a low or a high dividend? (10%)
- 2.** What are the possible reasons why the price of stock drops on the announcement of a new equity issue and why the price of stock increases on the announcement of share repurchase? (10%)
- 3.** The capital budgeting question is probably the most important issue in corporate finance. Please describe how to make a capital investment decision? (Hint: You must describe investment criteria, how to identify and organize the relevant cash flows and how to decrease the forecasting risk.) (10%)
- 4.** During the last decade, U.S. corporates are holding record-high amounts of cash. The related phenomenon has also emerged in Taiwan, especially in high technology corporates. Why are corporates holding so much cash? Please explain. (10%)
- 5.** Please respond to the following statement:
“Market efficiency means that it doesn't matter how you invest your money because the efficiency of the market will protect you from making a mistake.”
(10%)

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Part 1: Single-choice questions

1. (A)

$$3.25 \div 1.35 = 2.4074$$

2. (B)

3. (B)

4. (D)

$$0.07 \times \frac{1}{3} + 0.12 \times \frac{2}{3} = 0.1033$$

$$\frac{D}{E} = \frac{1}{2}, k_d = 0.07, k_e = 0.15$$

5. (C)

$$\begin{aligned} C &= S_0 \times N(d_1) - ke^{-rf \times T} N(d_2) \\ &= 48 \times 0.718891 - 45 \times e^{-0.05 \times 0.75} \times 0.641713 \\ &= 6.69 \end{aligned}$$

6. (C)

7. (C)

8. (D)

9. (A)

10. (B)

11. (C)

現金流動對價值 = 購買 T/B 所購的利息

12. (C)

13. (C)

14. (D)

15. (A)

16. (C)

$$1us \rightarrow 1.4c$$

$$8\% \quad 4\%$$

$$F = S \times \frac{1+r_c}{1+r_{us}}$$

$$= 1.4 \times \frac{1.04}{1.08}$$

$$= 1.3481$$

$$1.344 \quad \left. \begin{array}{l} \\ \end{array} \right\} 0.004$$

17. (B)

18. (B)

$$93 \times 3 \div 7 = 39.86$$

19. (C)

$$\beta_L = 0.9 + 0.9 \times (1 - 40\%) \times \frac{30}{70} = 1.13$$

20. (A)

$$0.06 \times \frac{4}{6} + 0.09 \times \frac{2}{6} = 0.07$$

$$-100,000 + \frac{100,000}{0.07} = 428,571$$

21. (C)

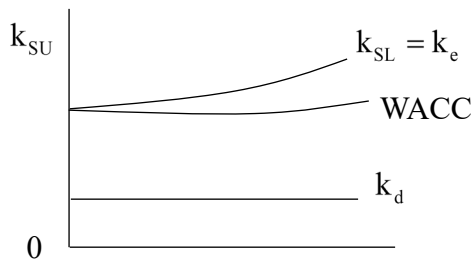
22. (D)

$$1 - \frac{0.66 \times 0.5}{0.8} = 0.5875$$

$$V_L = V_U + D \times \left[1 - \frac{(1 - T_c)(1 - T_{ps})}{(1 - T_{pb})} \right]$$

23. (E)

24. (E)



25. (A)

$$0.02 + 0.07 \times 1.2 = 10.4\%$$

Part 2: Questions

1. 見講義書內容
2. 見講義書內容
3. 見講義書內容
4. 見講義書內容
5. 效率市場的迷思—擲骰子的效率（見講義書）