1. (15%) 假設 A 公司宣布新計劃前的每股股價是 $120。公司最近有一新的投資計劃，預期此計劃將使公司每週的淨現值 (NPV) 增加 $30。請以一圖形說明下列三種情況 (a) 市場是 efficient market，股價對此新資訊宣布的反應。(b) 若市場不是效率市場，即股價對此新資訊經過 10 天才反應結束。(c) 市場過度反應 4 天再修正回来。並分別說明此現象。

2. (20%) Consider the following information about two securities.

<table>
<thead>
<tr>
<th>Security 1</th>
<th>Standard Deviation (標準差)</th>
<th>Beta 值</th>
</tr>
</thead>
<tbody>
<tr>
<td>35%</td>
<td></td>
<td>0.8</td>
</tr>
<tr>
<td>Security 2</td>
<td>18%</td>
<td>1.7</td>
</tr>
</tbody>
</table>

(1) Which has greater total risk (總風險)? Why?
(2) Which has greater systematic risk (系統風險)? Why?
(3) Which has greater unsystematic risk (非系統風險)? Why?
(4) Which asset will have a higher risk premium (風險溢酬 或貼水)? Why?

3. (30%) A stock has a beta of 1.2 and an expected return of 16%. A risk free asset currently earns 5%.

(1) What is the expected return on a portfolio that is equally invested in the two assets?
(2) If a portfolio of the two assets has a beta of 0.75, what are the portfolio weights?
(3) If a portfolio of the two assets has an expected return of 8%, what is its beta?
(4) If a portfolio of the two assets has a beta of 2.4, what are the portfolio weights? How do you interpret the weights for the two assets in this case? Explain.
(5) 請以圖形解釋投資組合多角化的意義？

4. (20%) A project will produce operating cash flows of $45,000 a year for four years. During the life of the project, inventory will be lowered by $30,000 and accounts receivable will increase by $15,000. Accounts payable will decrease by $10,000. The project requires the purchase of equipment at an initial cost of $120,000. The equipment will be depreciated straight-line to a zero book value over the life of the project. The equipment will be salvaged at the end of the project creating a $25,000 cash flow. At the end of the project, net working capital will return to its normal level. The tax rate is 20%. What is the net present value (淨現值) of this project given a required return of 10%?

5. (15%) 選擇題:

( ) 1. The process of planning and managing a firm’s long-term investments is called:
   a. working capital management.
   b. financial depreciation.
   c. agency cost analysis.
   d. capital budgeting.
   e. capital structure.
2. A stakeholder is:
   a. any person or entity that owns shares of stock of a corporation.
   b. any person or entity that has voting rights based on stock ownership of a corporation.
   c. a person who initially started a firm and currently has management control over the cash flows of the firm due to his/her current ownership of company stock.
   d. a creditor to whom the firm currently owes money and who consequently has a claim on the cash flows of the firm.
   e. any person or entity other than a stockholder or creditor who potentially has a claim on the cash flows of the firm.

3. The person generally directly responsible for overseeing the tax management, cost accounting, financial accounting, and data processing functions is the:
   a. treasurer.
   b. director.
   c. controller.
   d. chairman of the board.
   e. chief executive officer.

4. The mixture of debt and equity used by a firm to finance its operations is called:
   a. working capital management.
   b. financial depreciation.
   c. cost analysis.
   d. capital budgeting.
   e. capital structure.

5. The person generally directly responsible for overseeing the cash and credit functions, financial planning, and capital expenditures is the:
   a. treasurer.
   b. director.
   c. controller.
   d. chairman of the board.
   e. chief operations officer.

6. A market where trading takes place directly between buyers and sellers is called a(n):
   a. primary market.
   b. OTC market.
   c. dealer market.
   d. auction market.
   e. liquidation market.

7. Agency costs refer to:
   a. the total dividends paid to stockholders over the lifetime of a firm.
   b. the costs that result from default and bankruptcy of a firm.
   c. corporate income subject to double taxation.
   d. the costs of any conflicts of interest between stockholders and management.
   e. the total interest paid to creditors over the lifetime of the firm.

8. A business created as a distinct legal entity composed of one or more individuals or entities is called a:
   a. corporation.
   b. sole proprietorship.
   c. general partnership.
   d. limited partnership.
   e. unlimited liability company.
9. The corporate document that sets forth the business purpose of a firm is the:
   a. indenture contract.
   b. state tax agreement.
   c. corporate bylaws.
   d. corporate charter.
   e. articles of incorporation.

10. When one shareholder sells stock directly to another the transaction is said to occur in the:
    a. dealer market.
    b. primary market.
    c. secondary market.
    d. OTC market.
    e. NASDAQ market.

11. A market where dealers buy and sell securities for themselves, at their own risk, is called a(n):
    a. primary market.
    b. secondary market.
    c. dealer market.
    d. auction market.
    e. liquidation market.

12. A conflict of interest between the stockholders and management of a firm is called:
    a. stockholders' liability.
    b. corporate breakdown.
    c. the agency problem.
    d. corporate activism.
    e. legal liability.

13. The division of profits and losses among the members of a partnership is formalized in the:
    a. indemnity clause.
    b. indenture contract.
    c. statement of purpose.
    d. partnership agreement.
    e. group charter.

14. The management of a firm's short-term assets and liabilities is called:
    a. working capital management.
    b. debt management.
    c. equity management.
    d. capital budgeting.
    e. capital structure.

15. The original sale of securities by governments and corporations to the general public occurs in the:
    a. primary market.
    b. secondary market.
    c. private placement market.
    d. proprietary market.
    e. liquidation market.