

CIMA F3 Workbook Questions

Lecture 1

Organisational Strategy

Shareholder Wealth - Illustration 1

Year	Share Price	Dividend Paid
2007	3.30	40c
2008	3.56	42c
2009	3.47	44c
2010	3.75	46c
2011	3.99	48c

There are 2 million shares in issue.

Calculate the increase in shareholder wealth for each year:

- II. Per share
- III. As a percentage
- IV. For the business as a whole

Objective Test Questions

1. Which of the following statements does not relate to a profit making entity?
 - A. They exist primarily to increase the wealth of their shareholders.
 - B. They do not tend to have non-financial objectives.
 - C. They have other stakeholders besides shareholders to consider.
 - D. They have to find a balance between the risks in a strategy and the rewards to shareholders.

2. Which of the following statements relating to the 'Agency Problem' is NOT correct?
 - A. The management of the organisations are the agents of the shareholders who are the principle.
 - B. The problem arises where management focus on their own short term interests to the detriment of long term shareholder interests.
 - C. The problem may be greater in organisations where management accountability is low and shareholders are not well informed.
 - D. As management accountability decreases so the agency problem increases.

3. ABC Co. Paid out a dividend of 35c last year and 42c this year per share. Their share price has increased from \$4.33 to \$5.24 in that time. What is the percentage shareholder return in the current year.
 - A. 20.00%
 - B. 21.10%
 - C. 30.72%
 - D. 24.39%

4. HHH Co. is a listed, multi-national entity which has recently issued a statement confirming its main non-financial objectives. Which of the objectives outlined below could be criticised for not meeting the SMART criteria?
 - A. To reduce the carbon footprint of the organisation by 10% by 20X7.
 - B. To ensure that customer satisfaction is the highest in the industry.
 - C. To double market share within the next 5 years.
 - D. To ensure that ethnic minorities make up at least 20% of the employees in the organisation within the next 3 years.

5. Ideas Regional Hospital Trust is a publicly owned health provider being run as part of the National Health Service of Einsteinland. Recently an audit by the national regulators has highlighted 3 key problems:

1. The Key Performance Indicator of keeping spend per bed below \$4 was not met
2. An overspend of \$500,000 compared to budget on surgical gloves was discovered.
3. The primary target of the trust to treat all emergency patients within 1 hour was not met.

These failures are failures of:

- A. 1. Economy 2. Effectiveness 3. Efficiency
- B. 1. Effectiveness 2. Economy 3. Efficiency
- C. 1. Efficiency 2. Economy 3. Effectiveness
- D. 1. Efficiency 2. Effectiveness 3. Economy

Kaplan Exam Kit Questions 1 - 5 and 7

Lecture 2 - Integrated Reporting I

No Illustrations, Just Objective Test Questions

1. Which of the following is NOT a valid criticism of providing financial information only rather than other information to stakeholders?
 - A. Financial performance can be improved by impacting other areas of the business such as sustainability so should not be considered in isolation.
 - B. Financial statements are prepared using historic information which gives little information on likely future performance.
 - C. Financial statements focus too heavily on the future strategic direction rather than financial performance only.
 - D. Financial statements are prepared on the accruals basis and can therefore be manipulated.

2. Integrated reporting is a way to enable investors to assess not just the financial performance of the business but to get an understanding of the current and future strategic direction of the organisation. Is this statement:
 - A. True
 - B. False

3. Which of the following statements relating to the Global Reporting Initiative (GRI) guidelines is NOT correct?
 - A. The information provided relates to economic, environmental and social factors.
 - B. They provide a set of principles for the content of an integrated report as well as disclosures required.
 - C. The report can be included within the financial statements or in a separate document.
 - D. All disclosures required must be made or the entity cannot state that the report is in accordance with them.

4. Which of the following are general disclosures required by the Global Reporting Initiative guidelines?
 - A. Strategy and Analysis
 - B. Stakeholder Engagement
 - C. Labour Practices
 - D. Governance
 - E. Product Responsibility

5. Preparation of the integrated report is a one-off exercise that is undertaken a minimum of once every three years. Is this statement:

- A. True
- B. False

Kaplan Exam Kit Questions 26 - 29

Lecture 3 - Integrated Reporting II

No Illustrations, Just Objective Test Questions

1. Which of the following statements related to Integrated Reporting is NOT correct?

- A. Environmental reporting is an integral part of Integrated Reporting.
- B. Integrated Reporting is not a statutory requirement.
- C. Integrated Reporting forms part of sustainability reporting .
- D. Integrated Reporting includes information on the strategic direction of the entity.

2. GHT Co. is a mining company that has patented several different designs for mining machinery. It uses these machines to extract better than average quantities of raw materials. These machines form part of which capital for the purposes of the integrated report?

- A. Financial
- B. Natural
- C. Intellectual
- D. Manufactured

3. Which of the following is NOT a stated objective of the Integrated Reporting Council's (IR) Framework?

- A. To support integrated decision making.
- B. To report more widely on performance.
- C. To increase financial statement disclosures.
- D. To enhance accountability.

4. Which of the following are guiding principles of the Integrated Reporting Council's (IR) Framework?

- A. Stakeholder Relationships.
- B. Enhance Accountability.
- C. Conciseness.
- D. Improvement of capitals.
- E. Connectivity of information.

Kaplan Exam Kit Questions 30 - 32

Lecture 4

Performance

Measurement

Performance Analysis Illustration

	X1	X2	X3
Non Current Assets	500	700	1000
Current Assets	<u>150</u>	<u>200</u>	<u>300</u>
	<u>650</u>	<u>900</u>	<u>1300</u>
Ordinary Shares (\$1)	300	300	300
Reserves	100	280	430
Loan Notes	150	200	300
Payables	<u>100</u>	<u>120</u>	<u>270</u>
	<u>650</u>	<u>900</u>	<u>1300</u>
Revenue	3000	3500	4200
COS	2000	2400	3200
Gross Profit	<u>1000</u>	<u>1100</u>	<u>1000</u>
Admin Costs	300	350	400
Distribution Costs	200	250	300
PBIT	<u>500</u>	<u>500</u>	<u>300</u>
Interest	100	150	220
Tax	120	90	50
Profit After Tax	<u>280</u>	<u>260</u>	<u>30</u>
Dividends	100	110	30
Retained Earnings	<u>180</u>	<u>150</u>	<u>0</u>
Share Price	<u>\$3.30</u>	<u>\$4.00</u>	<u>\$2.20</u>

Using the information calculate and comment on the following Ratios:

- I. Return on Capital Employed
- II. Return on Equity
- III. Gross Margin
- IV. Net Margin
- V. Operating Margin
- VI. Revenue Growth
- VII. Gearing
- VIII. Interest Cover
- IX. Dividend Cover
- X. Dividend Yield
- XI. P/E Ratio

Lecture 5 - Financial Strategy

No Illustrations, Just Objective Test Questions

1. Which of the following statements related to investments made by an entity is NOT correct?

- A. All projects with a positive NPV should be undertaken.
- B. A balance must be found between investing in projects and the liquidity of the company.
- C. Shareholders can block investment decisions by a vote at the AGM.
- D. Investment decisions can have a large impact on shareholder wealth.

2. Which TWO of the following statements related to financing decisions are correct?

- A. Issuing debt will decrease gearing.
- B. Issuing equity will decrease gearing.
- C. Issuing debt is likely to decrease the entity's WACC.
- D. The cost of equity finance is less than the cost of debt finance.
- E. A long term project is most likely to be funded through a bank overdraft.

3. Which of the following statements related to dividend decisions is NOT correct?

- A. When shareholders receive a dividend they are taxed on it in that tax year.
- B. Paying a dividend will increase shareholder wealth.
- C. The market may interpret the dividend paid to make investment decisions.
- D. The entity must have cash available to pay a normal dividend.

4. Which THREE of the following statements is correct?

- A. The prevailing interest rate will have no effect on financing decisions.
- B. A weakened currency may lead to inflation.
- C. Competition authorities exist to protect shareholders.
- D. The government may intervene to prevent mergers or acquisitions.
- E. Regulatory bodies may have social objectives

5. Lenders have many criteria for assessing credit worthiness, in relation to this which of the following statements is NOT correct?

- A. An entity with a AAA rating will pay more interest than a company with an AA rating.
- B. An entity with a higher credit rating will find it easier to raise finance.
- C. Availability of assets for security is a major factor in determining credit worthiness.
- D. Lenders will assess what the borrowings will be used for before making a decision to lend.

Lecture 6 - Dividend Policy

No Illustrations, Just Objective Test Questions

1. Which of the following statements related to dividend policy is NOT correct?

- A. Paying a constant dividend means that dividends are falling in real terms.
- B. Paying a constant proportion of earnings means that dividends may fluctuate.
- C. Paying no dividend means the entity is having financial difficulties.
- D. An inflation linked dividend is likely to increase year on year.

2. Which TWO of the following statements related to dividend policy are correct?

- A. A 'ratcheted' dividend policy is generally disliked by the market.
- B. The market may perceive no dividend being paid as a sign of problems in the business.
- C. If an entity pays a lower dividend than previously it is a sign of a weak business.
- D. A 'residual' policy of paying what is left after investments as a dividend reduces shareholder wealth.
- E. Paying a % of earnings as a dividend is likely to lead to fluctuations in the dividend amount year on year.

3. According to Miller and Modigliani's dividend irrelevancy theory which of the following is NOT correct?

- A. Investors are indifferent between receiving a dividend or capital growth in the share price.
- B. If the company pays a dividend rather than re-invest the earnings shareholder wealth will be increased.
- C. Capital taxes and revenue taxes are assumed to be the same.
- D. Transaction costs are ignored.

4. Which of the following statements are correct?

- A. The 'bird in the hand' argument argues that a consistent dividend policy should be applied.
- B. The 'cliente effect' refers to the conclusion drawn by the market based on the dividend paid by the entity.
- C. A scrip issue is a dividend payment in shares instead of cash.
- D. A share re-purchase scheme is likely to reduce the gearing of the entity.

5. A share re-purchase scheme is often viewed negatively by the market as it may be perceived that management has 'run out of ideas' and is therefore returning cash to shareholders. Is this statement:

- A. True
- B. False

Kaplan Exam Kit Questions 105 - 112

Lecture 7 - Impact of Financial Strategy

Illustration 1

ABC Co.	X3
Statement of Financial Position	
Non Current Assets	1000
Current Assets	<u>300</u>
	<u>1300</u>
Ordinary Shares (\$1)	300
Reserves	630
Loan Notes	100
Payables	<u>270</u>
	<u>1300</u>
Statement of Profit or Loss	
Revenue	4200
COS	3200
Gross Profit	<u>1000</u>
Admin Costs	400
Distribution Costs	300
PBIT	<u>300</u>
Interest	10
Tax	50
Profit After Tax	<u>240</u>

ABC Co. is undertaking a new project and needs to raise an additional \$100m in capital. It intends to do this by issuing 5 year 12% bonds. Profit Before Interest & Tax will remain constant for one year while the new project is implemented.

What is the current interest cover and the gearing (Debt / Debt + Equity on book value) and what is expected to be in the next set of financial statements?

Illustration 2

ABC Co. is considering the acquisition of a competitor business CD Co. and requires \$400m in finance in order to achieve this. They have valued CD Co. at \$430m.

They are considering whether to fund the acquisition through debt or through issuing new shares (current share price \$3.25).

ABC is currently financed through share capital (\$1 shares) of \$1,200, retained earnings of \$750 and long term debt of \$300m.

(i) Calculate the gearing ratio (debt/(debt + equity)) on book value for ABC Co.:

- **Before the acquisition.**
- **Post acquisition assuming debt is used to fund the purchase.**
- **Post acquisition assuming equity is used to fund the purchase.**

(ii) Calculate all of the above using the market value of equity.

Illustration 3

ABC is currently financed through share capital (\$1 shares) of \$200, retained earnings of \$50 and long term 10% debt of \$70m. They made profit before interest and tax of \$27m in the most recent financial statements. The current share price is \$1.20.

The current borrowing have a covenant in place not to increase gearing (measured as debt / debt + equity at market values) below 25% and to keep interest cover above 3 times.

The directors plan to raise an additional \$10m in borrowings through a 5% loan secured on a company building.

Profits are expected to remain constant but the increase in financial risk means the share price is likely to drop to \$1.10.

(i) Calculate the gearing and interest cover before the new finance is issued.

(ii) Will ABC still be able to meet the debt covenants if it raises the new finance?

Illustration 4

FRT Co. has a current share price of \$3.76 and is considering offering a script dividend of 1 share for every 10 currently held.

What is the expected share price if the script dividend goes ahead?

Illustration 5

DFF Ltd. has 1m shares in issue and the current share price is \$4. The directors have proposed returning \$500,000 to shareholders either through a cash dividend or a share repurchase.

If a shareholder currently owns 1000 shares what will their position be under each option?

Objective Test Questions

1. Ando Co. has PBIT in the last financial year of \$120m and an interest charge of \$30m. It is funded by equity of \$500m and debt of \$300m. In the current year they have issued \$100m in new share capital and a \$50m 7% bond with PBIT remaining constant. Which of the following is correct for the current year?

- A. Gearing (Debt/Debt+Equity) is 39% and interest cover is 3.58 times.
- B. Gearing (Debt/Debt+Equity) is 37% and interest cover is 2.58 times.
- C. Gearing (Debt/Debt+Equity) is 58% and interest cover is 3.58 times.
- D. Gearing (Debt/Debt+Equity) is 50% and interest cover is 4.00 times.

2. Nono Co. is acquiring a competitor and requires \$110m in finance to do so. They have valued the competitor at \$120m. They will raise \$50m through a 6% bond and the rest through a share issue (current share price \$2.10).

Nono is currently financed through share capital (\$1 shares) of \$900, retained earnings of \$500 and long term debt of \$200m. Which of the following is correct after the acquisition?

- A. Gearing (Debt / Debt + Equity) will be 13% on book value and 15% on market value.
- B. Gearing (Debt / Debt + Equity) will be 15% on book value and 18% on market value.
- C. Gearing (Debt / Debt + Equity) will be 18% on book value and 15% on market value.
- D. Gearing (Debt / Debt + Equity) will be 20% on book value and 18% on market value.

3. Salso Co. has PBIT of \$50m and a bank loan of \$200m at an interest rate of 4% with an interest cover covenant of 5 times. They now intend to raise an additional \$50m of finance at a rate of 5%. Which of the following will be correct if they go ahead?

- A. Interest cover will be 4.76 and the covenant will be breached.
- B. Interest cover will be 4.76 and the covenant will not be breached.
- C. Interest cover will be 6.25 and the covenant will be breached.
- D. Interest cover will be 6.25 and the covenant will not be breached.

4. FRT Co. has a current share price of \$6.55 and is considering offering a script dividend of 1 share for every 30 currently held.

What is the expected share price if the script dividend goes ahead?

- A. \$5.95
- B. \$6.55
- C. \$6.43
- D. \$6.34

5. Which of these statements related to a share repurchase scheme is NOT correct?

- A. It will increase the wealth of some shareholders.
- B. It involves the purchase and canceling of some of the company's own shares.
- C. It is likely to increase the gearing of the company.
- D. It is likely to increase the EPS of the company.

Kaplan Exam Kit Q38 - 40

Lecture 8 - Further Strategic Considerations

Illustration 1

US Interest rate = 10%

UK Interest rate = 8%

Exchange rate = €/\$ 1 : 2

Predict the exchange rate in 1 year

Objective Test Questions

1. 'There is a risk that the value of our foreign currency-denominated assets and liabilities will change when we prepare our accounts.'

To which risk does the above statement refer?

- A Translation risk
- B Economic risk
- C Transaction risk
- D Interest rate risk

2. The current interest rate in the UK is 4% whilst in the US it is 6%. The spot rate is £1:\$1.35. What is the expected exchange rate in six months time?

- A. £1: \$1.325
- B. £1: \$1.376
- C. £1: \$1.363
- D. £1: \$1.337

3. Which of the following statements is NOT correct?

- A. Increased inflation may lead to an increase in finance costs for a business.
- B. Increased inflation will have a detrimental effect on those people on a fixed income such as pensioners.
- C. An increase in inflation is likely to lead to a drop in average wages.
- D. Inflation increases may lead consumers to bring forward purchases they are intending to make.

4. Which of the following THREE statements are correct?

- A. Interest rates may be increased in response to falling inflation.
- B. Decreases in interest rates will increase the disposable income available to consumers.
- C. The exchange rate tends to rise in response to an increase in interest rates.
- D. Interest rate increases tend to happen during a recession.
- E. A decrease in the interest rate may signal the end of an upward trend in the business cycle.

Kaplan Exam Kit Q41

Lecture 9 - Hedge Accounting

Illustration 1

In June 20X5 ABC Co. (a jewelry manufacturer) is worried about the price of gold increasing. ABC intends to buy 1,000 ounces of gold on 31st Dec 20X5 so enters into a futures contract to buy 1,000 ounces of gold at \$1,235 per ounce on 31 Dec 20X5.

The year end of ABC Co. is 31 October 20X5 and on that date the futures price for delivery on 31 Dec 20X5 is \$1,300 per ounce.

Show the accounting entries to record the futures contract in the financial statements at the year end 31 October 20X5.

Illustration 2

A company purchases a \$2 million bond that has a fixed interest rate of 6% per year . The instrument is classed as a FVPL financial asset. The fair value is \$2 million.

The company enters into an interest rate swap (fair value zero) to offset the risk of a decline in fair value. If the derivative hedging instrument is effective, any decline in the fair value of the bond should be offset by opposite increases in the fair value of the derivative instrument. The swap is expected to be 100% effective.

The company designates and documents the swap as a hedging instrument.

Market interest rates increase to 7% and the fair value of the bond decreases to \$1,920,000.

Show the double entry to record the hedge in the financial statements

Illustration 3

ABC intends to buy 1,000 ounces of gold on 31st Jan 20X6 at the prevailing market price on that date. The current price of gold is \$1,200.

ABC is concerned that the price of gold may rise, so enters into a futures contract to buy 1,000 ounces of gold at \$1,300 per ounce on 31 March 20X6.

The company designates and documents the futures contract as a hedging instrument.

The year end of ABC Co. is 31 October 20X5 and on that date the futures price for delivery on 31 March 20X6 is \$1,400 per ounce. The market price of gold on that date is \$1,325.

On 31 Jan 20X6 the futures contract is settled at \$1,450 and the contract for the gold purchase is completed at a price of \$1,350.

Show the impact of this cash flow hedge on the financial statements of ABC Co. at:

(i) 31 Oct 20X5

(ii) 31 Jan 20X6

Objective Test Questions

1. NMN is a UK based company and is receiving \$400,000 from a US customer in 6 months. NMN takes out a forward contract at a rate of £1:\$1.40 and by its year end in 3 months the spot rate is £1:\$1.45. At what value should the contract be included in the financial statements at the year end?
- A. £275,862
 - B. £285,714
 - C. £9,852
 - D. Zero
2. Which of the following statements regarding hedge accounting is NOT correct?
- A. A 'hedging instrument', usually a derivative, is used to offset losses in a 'hedged item'.
 - B. The hedging relationship must be documented at inception of the hedge.
 - C. The effectiveness of the hedge is assessed at the end of the hedging relationship.
 - D. The forecast transaction must be highly probable.
3. ABC Co. is a UK firm and has an investment of \$200m in a US company. They have hedged this investment through issuing a US bond worth \$180m at inception. The exchange rate was \$1 = £0.65 at inception and is now \$1 = 0.75. How effective is the hedge?
- A. 50%
 - B. 120%
 - C. 90%
 - D. 100%
4. P has inventory 1000 barrels of oil at cost of \$120,000. They hedge the risk of a fall in value by taking out a futures contract to sell at \$100 per barrel. By the year end the oil price is \$50 per barrel and the futures price is \$40. Which of the following is the correct treatment at the year end:
- A. Debit the P/L with \$70,000 for the inventory and credit the P/L with \$60,000 for the futures contract.
 - B. Credit the P/L with \$70,000 for the inventory and debit the P/L with \$60,000 for the futures contract.
 - C. No entries should be made as the hedge is not effective.
 - D. Debit OCI with \$70,000 for the inventory and credit OCI with \$60,000 for the futures contract.

5. Which of the following statements regarding a cash flow hedge is NOT correct?

- A. The item being hedged is a future cash flow.
- B. Any changes in fair value of the hedging instrument are recorded immediately in the P/L account.
- C. The hedge must be highly effective.
- D. The risk being hedged must be documented by the entity

Kaplan Exam Kit Q42 - 50

Lecture 10 - Financial Inst. Disclosures

No Illustrations, Just Objective Test Questions

1. IFRS 7 splits financial instrument disclosures into 2 categories. Which of the following is a category of disclosure under IFRS 7?
 - A. Information about strategies.
 - B. Information about significance.
 - C. Information about hedging.
 - D. Information about risks.
 - E. Information about reclassification.

2. Which of the following is not a required disclosure under the 'Information about risks' category of IFRS 7?
 - A. Qualitative disclosures
 - B. Quantitative disclosures
 - C. Market Risk disclosures
 - D. Cash flow disclosures

Lecture 11 - Sources of Finance

No Illustrations, Just Objective Test Questions

1. Which of TWO the following is likely to encourage an entity to fund an investment through the use of equity finance?

- A. They feel that their current Weighted Average Cost of Capital is too high and wish to lower it.
- B. It is a long term investment.
- C. They want to reduce their tax bill.
- D. They would like to hedge the currency risk on the investment.
- E. There is a covenant on some of their debt to keep gearing below a certain level.

2. Which of the following statements is NOT correct?

- A. Ordinary shares carry the right to vote at the AGM.
- B. Preference shares pay a fixed dividend from post tax earnings.
- C. Dividends on ordinary shares and preference shares are discretionary.
- D. A skipped dividend on a cumulative preference share is payable in future years.

3. Which of the following statements is NOT true of the stock market?

- A. Investors can use the information on the stock market to assess historic performance.
- B. To become listed on the stock market is time consuming and expensive.
- C. Listed companies will find it more difficult to raise finance than unlisted companies.
- D. Company founders can use the stock market to realise the value in their company.

Lecture 12 - Issuing Shares

Illustration 1

Inchie Co. is seeking to raise \$10m to invest in a new project. They have asked for investors to tender offers and have received the following:

Max. Share Price (\$ Per Share)	No. Shares Requested (Million)
5.75	0.387
5.50	0.669
5.25	0.885
5.00	0.901

What strike price should be set by Inchie Co.?

Objective Test Questions

1. Which of the following statements is NOT correct?

- A. Listing a company on the stock exchange is likely to increase its value.
- B. The weighted average cost of capital is likely to rise once a company becomes listed.
- C. Stakeholders may perceive the company as of higher standing after a stock market listing.
- D. A listed company will find it easier to raise further finance in the future.

2. Which TWO of the following statements are correct.

- A. There is the potential that an IPO at a fixed price will raise more capital than is required by the company.
- B. An IPO at a tender price may fail if the price offered by investors is insufficient to raise the capital required.
- C. In an IPO an issuing house decides the price at which to offer the shares.
- D. Staggering involves buying a small number of shares in an IPO and hoping to make a long term return.
- E. Investors who own shares before the IPO may be prevented from selling their shares for a time after.

3. Archie Co. is seeking to raise \$20m to invest in a new project. They have asked for investors to tender offers and have received the following:

Max. Share Price (\$ Per Share)	No. Shares Requested (Million)
10.50	0.487
9.75	0.769
9.00	0.985
8.25	0.901

Exactly how much capital will be raised at the strike price likely to be chosen by Archie?

- A. \$20.00m
- B. \$25.92m
- C. \$20.17m
- D. \$5.11m

4. Which of the following would NOT be true of private placing of shares.
- A. It will lead to an active market in the shares as there are more shares available.
 - B. It is cheaper to arrange than an IPO.
 - C. It can be done quite quickly and often does not need the detailed disclosures of an IPO.
 - D. The placing does not need to be publicly announced.
5. Which of the following TWO statements is true of a private equity buy out of a listed company.
- A. Often the debt to equity ratio of the funds used to undertake the buy out is above 80/20.
 - B. Companies with falling cash flows and share price along with a high asset value is susceptible to a private buy-out.
 - C. The prime reason for a private equity buy out is to make profit from the company cash flows generated.
 - D. The exit-strategy refers to how the private equity firm raise the funds to purchase the company.
 - E. Once a firm is de-listed from the stock exchange it cannot return in the future.

Lecture 13

Rights Issue

Illustration 1

XYZ Ltd. intends to raise capital via a rights issue.

The current share price is \$8.

They are offering a 1 for 4 issue at a price of \$6.

Calculate the Theoretical Ex-rights Price.

Illustration 2

ABC Ltd. has decided to raise capital via a rights issue.

The share price is currently \$5.50 and ABC intends to raise \$5m.

There are currently 6.25m shares in issue and ABC is offering a 1 for 5 rights issue.

Calculate the Theoretical Ex-Rights Price.

Illustration 3

XYZ Ltd. intends to raise capital via a rights issue.

The current share price is \$18.

They are offering a 1 for 3 issue at a price of \$15.

The rate of return on the new shares is expected to be 13%.

The rate of return on existing capital is 10%.

Calculate the Yield Adjusted Theoretical Ex-rights Price.

Illustration 4

ABC Ltd. has decided to raise capital via a rights issue.

The share price is currently \$8 and ABC intends to raise \$15m.

There are currently 10m shares in issue and ABC is offering a 1 for 4 rights issue.

The rate of return on the new shares is expected to be 14%.

The rate of return on existing capital is 12%.

Calculate the Yield Adjusted Theoretical Ex-rights Price.

Objective Test Questions

1. Losto Co. has 30m \$1 shares in issue which have a current market value of \$6. They undertake a rights issue of 1 share for every 5 currently in issue and the theoretical ex rights price turns out to be \$5.40. How much finance did they raise?

- A. \$
- B. \$14.4m
- C. \$32.4m
- D. \$

2. If the discount on a rights issue is too little which of the following could be a consequence?

- A. The shareholders may not take up the right to buy the share.
- B. The share price could fall leading to a lack of demand for the issued shares.
- C. The company may not raise the capital they require.
- D. All of the above.

3. ABC Ltd. has decided to raise capital via a rights issue.

The share price is currently \$15 and ABC intends to raise \$25m.

There are currently 8m shares in issue and ABC is offering a 1 for 5 rights issue.

The rate of return on the new shares is expected to be 10%.

The rate of return on existing capital is 7%.

What is the Yield Adjusted Theoretical Ex-rights Price.

- A. \$14.58
- B. \$15.48
- C. \$12.50
- D. \$13.34

4. Which of the following statements is NOT correct?

- A. The rights attached to a share can be sold separately through the stock market.
- B. A rights issue is less expensive and quicker than an IPO.
- C. An underwriter is not required for a rights issue as all the shares are likely to be sold.
- D. If a shareholder does not take up or sell the rights they will experience a decrease in shareholder wealth.

Lecture 14 - Debt Finance

No Illustrations, Just Objective Test Questions

1. Which of the following statements is NOT correct?

- A. A company that issues an unsecured bond will often pay a higher rate of interest on it than a secured bond.
- B. The interest paid on debt is tax deductible and therefore debt is a relatively cheap source of finance.
- C. Floating security over general business assets guarantees creditors all of their capital back.
- D. Debt covenants such as dividend restrictions preserve liquidity to ensure interest is paid.

2. Which THREE of the following statements are correct?

- A. Revolving Credit Facilities (RCFs) involve a fixed amount of credit with ongoing interest due on the total.
- B. There is a secondary market for corporate bonds where investors can sell before the bond matures.
- C. Commercial paper is long term company debt.
- D. Bond Underwriters advertise and place the bond issue.
- E. Bonds may be purchased by individuals, companies or the government.

3. Which of the following statements is correct relating to the issue of bonds on the London Stock Exchange?

- A. Any company with a value of £1bn or more can issue bonds on the London Stock Exchange.
- B. The underwriters will decide the interest rate and redemption date of the bond.
- C. A market maker is required to buy and sell the bonds or the issue will fail.
- D. A bond issue does not require a prospectus or advertising like a share issue.

4. Put the following in order as to the interest rate likely to be paid with the one with the highest rate first:

1. Commercial Paper
2. Convertible Debt
3. Corporate Bond
4. Long term Secured Bank Loan

- A. 1, 3, 4, 2
- B. 3, 2, 4, 1
- C. 1, 4, 2, 3
- D. 2, 3, 4, 1

Kaplan Exam Kit Q79 to 84

Lecture 15

Lease v Buy

Illustration 1

Machine cost \$10,000

The Machine has a useful economic life of 5 years with no scrap value

Capital allowances available at 25% reducing balance

Finance choices

- 1) 5 year loan 14.28% pre tax cost
- 2) 5 year Finance Lease @ \$2,200 pa in advance

If the machine is purchased then maintenance costs of \$100 per year will be incurred.

The tax rate is 30%.

The leasing company will maintain the machine if it is leased.

Should the company lease or buy the machine.

Illustration 2

Endevour Co. is considering purchasing an asset worth \$250,000 on a 4 year finance lease with annual payments of \$70,500 payable in arrears.

Calculate the interest to be paid in each of the 4 years of the lease using the actuarial method.

Illustration 3

Endevour Co. is considering purchasing an asset worth \$250,000 on a 4 year finance lease with annual payments of \$70,500 payable in arrears.

Calculate the interest to be paid in each of the 4 years of the lease using the sum of digits method.

Objective Test Questions

1. Which of the following statements best describes a finance lease?

- A. A contract that allows the use of an asset but does not convey rights of ownership.
- B. A method of raising capital which may or may not be used for purchase of an asset.
- C. A contract that transfers substantially all of the risk and rewards of ownership to the lessee.
- D. A contract where the lessor retains beneficial ownership of the asset.

2. Davos Co. intends to lease a machine on a 5 year operating lease for a payment of \$3,500 payable in advance. The tax rate is 30%. The pre-tax cost of borrowing is 15.71%. What is the present value cost to the business of leasing the machine?

- A. \$9,440
- B. \$10,480
- C. \$10,864
- D. \$10,974

3. Enterprise Co. is considering purchasing an asset worth \$500,000 on a 4 year finance lease with annual payments of \$151,000 payable in arrears.

What is the interest to be paid in year 3 of the lease if calculated using the annuity method?

- A. \$31,120
- B. \$26,740
- C. \$21,530
- D. \$11,172

4. Enterprise Co. is considering purchasing an asset worth \$500,000 on a 4 year finance lease with annual payments of \$151,000 payable in arrears.

What is the interest to be paid in year 4 of the lease if calculated using the sum of digits method?

- A. \$10,400
- B. \$20,800
- C. \$21,530
- D. \$41,600

Lecture 16

Capital Structure

Capital Structure - Illustration 1

A company has total capital of \$1,000 with debt making up \$300 and equity making up \$700 of the total. The company's cost of debt is 5% and cost of equity is 14%.

- I. Calculate the company's current WACC.
- II. Calculate the WACC if the company substitutes \$200 of equity for \$200 of debt causing their cost of equity to rise to 16%.
- III. Calculate the WACC if the company substitutes \$300 of equity for \$300 of debt causing their cost of equity to rise to 25%.

Objective Test Questions

1. If two companies have the 1..... **(same/different)** annual cash flows and operate in the same industry then the company with the 2..... **(lower/higher)** weighted average cost of capital will have a higher value. The missing words are:
 - A. 1. same 2. higher
 - B. 1. same 2. lower
 - C. 1. different 2. lower
 - D. 1. different 2. higher

2. Which TWO of the following statements regarding the traditional view of capital structure are correct?
 - A. There is a linear relationship between the cost of equity and financial risk.
 - B. There is a level of gearing at which the WACC can be minimised.
 - C. No matter what the gearing level the cost of debt remains constant.
 - D. If the company takes on more debt the value of the firm always decreases.
 - E. At high levels of gearing the shareholders require a greater return.

3. Which of the following statements concerning capital structure theory is correct?
 - A. The traditional view of capital structure suggests that the company can maximise their weighted average cost of capital
 - B. Modigliani and Miller said that, incorporating tax, the weighted average cost of capital would remain constant
 - C. Modigliani and Miller said, ignoring tax, the value of the firm will remain constant at all gearing levels.
 - D. Modigliani and Miller said, incorporating tax, the value of the firm will remain constant at all gearing levels.

4. What does the M&M model with tax suggest a company should do with their capital structure?
 - A. As there is greater financial risk at high levels of gearing the company should have as little debt as possible.
 - B. As the transaction costs will be high the company should retain their current capital structure for as long as possible.
 - C. As taking on more debt reduces the weighted average cost of capital the company should increase their gearing levels.
 - D. The company should find the optimum capital structure at which it can minimise its weighted average cost of capital.

Lecture 17

M & M Formulae

Illustration 1

ABC Ltd has a share price of 350c and 1m shares in issue. It currently has no debt. Current cost of capital is 13%.

The directors have decided to replace \$2m of equity with 10% debt. The tax rate is 30%.

Required

(i) Calculate the new total value (Debt + Equity) of the geared firm.

(ii) Calculate the value of the shareholder's equity in the geared firm (Total Value - Debt).

Illustration 2

DFR Co. currently has \$1000m of equity and no debt with a cost of equity of 12%. It is considering issuing a \$300m 7% bond to fund a new project. If the tax rate is 30% what will DFR's cost of equity move to according to M&M?

Illustration 3

ABC Co. and CD Co. operate in the same industry and are identical in their ability to generate cash flows.

ABC Co. is financed by Equity only of 3000m shares with current value of \$1 and has a cost of equity calculated at 15%.

CD Co. has irredeemable debt with a market value of \$900m and cost of debt of 8%. The value of CD's equity is \$2,397m.

The tax rate is 33%.

Required

(i) Calculate the Cost of Equity for CD Co.

Illustration 4

ABC Co. and CD Co. operate in the same industry and are identical in their ability to generate cash flows.

ABC Co. is financed by Equity only of 3000m shares with current value of \$1 and has a cost of equity calculated at 15%.

CD Co. has the same total capital but within it has irredeemable debt with a market value of \$900m and cost of debt of 8%. The value of equity (Ve) is \$2,397m

The tax rate is 33%.

What is the WACC for CD Co.

Objective Test Questions

1. ABC Co. and CD Co. operate in the same industry and are identical in their ability to generate cash flows.

ABC Co. is financed by Equity only of 3m shares with current value of \$1 and has a cost of equity calculated at 15%.

CD Co. has the same total capital but within it has irredeemable debt with a market value of \$0.9m.

The tax rate is 33%.

What is the value of the shareholder's equity only in CD Co.

- A. \$3,297m
- B. \$3,000m
- C. \$2,397m
- D. \$3,900m

2. DEF Co. and GR Co. operate in the same industry and are identical in their ability to generate cash flows.

DEF Co. is financed by Equity only of 5000m shares with current value of \$2.33 and has a cost of equity calculated at 14%.

CD Co. has irredeemable debt with a market value of \$2000m and cost of debt of 6%. The value of CD's equity is \$8000m.

The tax rate is 25%.

What is the Cost of Equity for CD Co.

- A. 14%
- B. 16%
- C. 15.5%
- D. 13.5%

3. DEF Co. and GR Co. operate in the same industry and are identical in their ability to generate cash flows.

DEF Co. is financed by Equity only of 5000m shares with current value of \$2.33 and has a cost of equity calculated at 14%.

CD Co. has irredeemable debt with a market value of \$2000m and cost of debt of 6%. The value of CD's equity is \$8000m.

The tax rate is 25%.

(i) What is the WACC for CD Co.

- A. 11.5%
- B. 14%
- C. 11.2%
- D. 10.7%

Lecture 18 - Gearing in the real world

No Illustrations, Just Objective Test Questions

1. According to pecking order theory, in which order would a firm access the following sources of finance?

- i. Preference Shares
- ii. Retained earnings
- iii. Ordinary Shares
- iv. Debentures

- A. ii, iii, i, iv
- B. iii, i, iv, ii
- C. ii, i, iv, iii
- D. ii, iv, i, iv

2. Which of the following statements is NOT correct?

- A. Static trade off theory suggests the WACC can be minimised through a balance of debt and equity.
- B. The benefits of increased debt finance in lowering the WACC may be wiped out through 'tax exhaustion'.
- C. Gearing drift suggests that over time the gearing levels in a company tend to drift upwards.
- D. A company's debt capacity may be increased by successful projects with a positive NPV.

3. Which of the following statements related to transfer pricing is NOT correct?

- A. Transfer pricing is often used by companies to reduce their tax liability.
- B. Countries often have rules that mean that transfer pricing must reflect market prices for such transactions.
- C. Transfer pricing is illegal in many developed nations.
- D. Setting transfer pricing levels carries significant reputation risk for the company.

4. Which TWO of the following statements are correct?

- A. Thin capitalisation is of interest to revenue authorities concerned about abuse by excessive interest deductions.
- B. Thin capitalisation rules determine how much interest paid on corporate debt is deductible for tax.
- C. Often an interest cover of greater than 3 will indicate thin capitalisation.
- D. Creditors will be unconcerned by thin capitalisation as the risk is borne by debt holders.

Lecture 19 - Swaps

Illustration 1

Company A is considering an interest rate swap with Company B. They can borrow at the following rates:

	Fixed	Floating
A	10%	LIBOR +1%
B	12%	LIBOR +1.5%

Show the effect of using an interest rate swap.

Illustration 2

Evans Co. is an Australian firm looking to expand in France and is thus looking to raise €24m it can borrow at the following fixed rates:

A\$ 7.0%
€5.6%

Portmoth is a Spanish Co. looking to acquire an Australian firm and wants to borrow A \$40m. It can borrow at the following rates:

A\$7.2%
€5.5%

The current spot rate is A\$1 = €0.60

Show how a currency swap for 1 yr with interest paid at the end of the year would work.

Objective Test Questions

1. Company A is considering an interest rate swap with Company B. They can borrow at the following rates:

	Fixed	Floating
A	7%	LIBOR +1.25%
B	9.5%	LIBOR +1.75%

What rate of interest will Company B pay after the swap?

- A. LIBOR + 1.75%
- B. 8.5%
- C. LIBOR + 1.25%
- D. 9%

2. Which of the following statements is TRUE?

- A. A currency swap usually involves the swap of interest payments but not the capital amount.
- B. A currency swap involves the swap of capital amounts but not the periodic interest payments.
- C. A currency swap can be used to reduce borrowing costs and hedge currency risk.

3. Company C can borrow \$100m at a variable rate of LIBOR + 2%. Company D can borrow \$100m at a variable rate of LIBOR + 2.75%. Company C can borrow this amount at a fixed rate of 6%.

Which of the following statements is true?

- A. If Company D is able to borrow at a fixed rate of 5.25% an interest rate swap will be beneficial to both.
- B. If Company D is able to borrow at a fixed rate of 7.5% an interest rate swap will be beneficial to both.
- C. The swap will be beneficial no matter what rate Company D can borrow fixed at.
- D. The swap will be not be beneficial no matter what rate Company D can borrow fixed at.

Lecture 19

Business Valuations

I

Illustration 1

Non Current Assets	550,000
Current Assets	170,000
Current Liabilities	-80,000
Share Capital	300,000
Reserves	200,000
10% Loan Notes	150,000
The Market Value of property in the Non Current Assets is \$50,000 more than the book value.	
The Loan Notes are redeemable at a 5% premium.	

What is the value of a 70% holding using the net assets valuation basis?

Illustration 2

ABC Co. wants to value their company in order to raise more capital. They have a lot of intangible assets so wish to use the CIV method to put a value to these.

ABC has operating profit of \$250m and has a WACC of 9% and an asset base of \$700m.

CD Co. is a larger but similar firm which made an operating profit of \$1,000m on an asset base of \$5,500m.

Calculate the value of ABC Co. incorporating the CIV.

Illustration 3

	X1	X2	X3
	\$'000	\$'000	\$'000
Revenue	3000	3500	4200
COS	2000	2400	3200
Gross Profit	<u>1000</u>	<u>1100</u>	<u>1000</u>
Admin Costs	300	350	400
Distribution Costs	200	250	300
PBIT	<u>500</u>	<u>500</u>	<u>300</u>
Interest	100	150	220
Tax	120	90	50
Profit After Tax	<u>280</u>	<u>260</u>	<u>30</u>
Dividends	100	110	30
Retained Earnings	<u>180</u>	<u>150</u>	<u>0</u>
Industry P/E Average	<u>13</u>	<u>12</u>	<u>14</u>

Calculate the Value of the Company for each of the 3 years using the P/E Ratio method.

Illustration 4

	X1	X2	X3
	\$'000	\$'000	\$'000
Revenue	3200	3800	4800
COS	2000	2400	3200
Gross Profit	<u>1200</u>	<u>1400</u>	<u>1600</u>
Admin Costs	300	350	400
Distribution Costs	200	250	300
PBIT	<u>700</u>	<u>800</u>	<u>900</u>
Interest	100	150	220
Tax	120	90	50
Profit After Tax	<u>480</u>	<u>560</u>	<u>630</u>
Dividends	100	110	150
Retained Earnings	<u>380</u>	<u>450</u>	<u>480</u>
Industry P/E Average	<u>17</u>	<u>15</u>	<u>18</u>
Number of Shares	3m	3m	3m

Calculate the Earnings Per Share for each of the 3 years

Calculate the Value of the Company for each of the 3 years using the EPS you calculate.

Illustration 5

	X1	X2	X3
	\$'000	\$'000	\$'000
Revenue	3100	3700	4600
COS	2000	2400	3200
Gross Profit	<u>1100</u>	<u>1300</u>	<u>1400</u>
Admin Costs	300	350	400
Distribution Costs	200	250	300
PBIT	<u>600</u>	<u>700</u>	<u>700</u>
Interest	100	150	220
Tax	120	90	50
Profit After Tax	<u>380</u>	<u>460</u>	<u>430</u>
Dividends	100	110	150
Retained Earnings	<u>280</u>	<u>350</u>	<u>280</u>
Earnings Yield	<u>0.15</u>	<u>0.18</u>	<u>0.17</u>
Number of Shares	4m	4m	4m

Calculate the Earnings Per Share for each of the 3 years and the share price using the earnings yield.

Objective Test Questions

1.

Non Current Assets	550,000
Receivables	170,000
Inventory	130,000
Overdraft	-180,000
Payables	-120,000
Share Capital	300,000
Reserves	200,000
10% Loan Notes	-150,000
The Market Value of property in the Non Current Assets is \$100,000 less than the book value.	
If realised now the receivables would be worth 64% of their current book value.	
If sold all at once the inventory would achieve 52% of it's current book value.	
The Loan Notes are redeemable at a 15% premium.	

What is the net assets value of the company if it did not continue as a going concern and was wound up to return funds to shareholders.

- A. \$176,400
- B. \$333,900
- C. \$153,900
- D. \$400,000

2. CDE Co. wants to value their company in order to raise more capital. They have a lot of intangible assets so wish to use the CIV method to put a value to these.

CDE has operating profit of \$400m and has a WACC of 12% and an asset base of \$950m.

OP Co. is a larger but similar firm which made an operating profit of \$1,500m on an asset base of \$7,500m.

What is the value of ABC Co. incorporating the CIV.

- A. \$2,700m
- B. \$5,867m
- C. \$1,750m
- D. \$9,250

3. Bodo Co. has a P/E ratio of 13 and has just paid a dividend of \$3m. Bodo Co. has a dividend cover ratio of 6. What is the current market capitalisation of Bodo Co.?

- A. \$39m
- B. \$78m
- C. \$234m
- D. \$324m

4. Tando Co. currently has earnings of \$300m and has share capital (50c shares) of \$400m. The total market capitalisation of Tando Co. is currently \$1,344m. What is the earnings yield for Tando Co.?

- A. 16.8%
- B. 37.5%
- C. 13.4%
- D. 22.3%

5. Which of the following would be valid criticisms of using the P/E ratio to value a company?

- A. The earnings used to calculate it are usually stripped of exceptional items to ensure they are repeatable.
- B. It gives a broad valuation that is not based on the profit making capacity of the company.
- C. It tends to undervalue the firm as it uses figures from the financial statements.
- D. The use of the industry average P/E as a proxy may not equate to a true approximation.

Lecture 20

Business Valuations

II

Illustration 1

ABC Company earned \$100,000 in cash inflows this year.

They expect this to increase in each of the next 5 years by 5% and after that to increase by 2% forever.

The company uses a cost of capital of 10%.

Calculate the value of the company using the present value of future cash flows method.

Illustration 2

ABC Ltd. uses a time horizon of 12 years to forecast free cash flows.

They use a planning horizon of 3 years after which they expect cash flows to remain at a steady level.

The cash flows projected are as follows:

Year	\$
1	3m
2	5m
3	7m

The stock market value of debt is \$6m and the cost of capital is 10%.

Calculate the value of the firm and the value of the equity.

Illustration 3

The following figures are relevant:

	\$m
Operating Profit	400
Depreciation	150
Increase in Working Capital	40
Capital Expenditure to replace assets	8
New Capital expenditure	18
Interest Paid	7
Loans Repaid	30
Tax Paid	120

Calculate the free cash flows before interest and dividends and then the free cash flows to equity.

Illustration 4

ABC pays a constant dividend of 45c. It has 3m ordinary shares.

The shareholders require a return of 15%.

What is the Value of the business?

Illustration 5

A business has Share Capital made up of 50c shares of \$3 million
Dividend per share (just paid) 30c
Dividend paid four years ago 22c
Required Return = 12%

Calculate the Value of the business using the dividend valuation method.

Illustration 6

Opto Co. has generated post tax cash flows of \$400m with finance costs of \$50m which have not been included. The cost of equity is 16% and the WACC is 12%. The value of debt is \$669m.

Calculate the value of the company using:

- i. The cost of equity
- ii. The company WACC

Illustration 7

Asto Co. is an all equity financed listed company with a cost of equity of 12%.

Prissy Co. is unlisted and financed with a debt/equity ration of 25/75. The cost of debt is 5% and the tax rate is 30%. Prissy Co. earned \$200m in post tax, after finance cash flows.

Calculate the value of shareholders equity in Prissy Co..

Objective Test Questions

1. ABC Company earned \$500,000 in cash inflows this year.

They expect this to increase in each of the next 5 years by 6% and after that to increase by 3% forever.

The company uses a cost of capital of 12%.

What will the value of the company be using the present value of future cash flows method?

- A. \$2,125,785
- B. \$6,467,659
- C. \$4,341,874
- D. \$9,783,412

2. ABC Ltd. uses a time horizon of 20 years to forecast free cash flows.

They use a planning horizon of 5 years after which they expect cash flows to remain at a steady level.

The cash flows projected are as follows:

Year	\$
1	3m
2	5m
3	7m
4	8m
5	10m

The stock market value of debt is \$13m and the cost of capital is 12%.

What is the value of the firm on a discounted cash flow basis?

- A. \$31.3m
- B. \$32.65m
- C. \$44.3m
- D. \$23.64m

3. A business has Share Capital made up of 50c shares of \$5 million
Dividend per share (just paid) 40c
Dividend paid four years ago 28c
Required Return = 14%

What is the value of the business using the dividend valuation method.

4. Lopo Co. is an all equity financed listed company with a cost of equity of 11%.

Salto Co. is unlisted and financed with a debt/equity ratio of 20/80. The cost of debt is 3% and the tax rate is 25%. Prissy Co. earned \$100m in post tax, after finance cash flows.

Calculate the value of shareholders equity in Salto Co..

5. Which of the following statements are not correct?

- A. Valuing a business on the basis of net assets is likely to lead to an undervaluation.
- B. The cost of equity in an un-g geared firm is lower than the cost of equity in a geared firm.
- C. Internal management are likely to over-estimate the value of the company.
- D. Valuing a start-up business will be easiest using the dividend valuation method.

Lecture 21

CAPM

Illustration 1

Company A has a Beta of 1.2.

Government bonds are currently trading at 4%.

The average return than investors in the market can expect is 15%.

Calculate the Cost of Equity using CAPM.

Illustration 2

Company A has a Beta of 1.2.

Company B has a Beta of 1.

Government bonds are currently trading at 5%.

The average return than investors in the market can expect is 12%.

Calculate the Cost of Equity using CAPM for each company.

Illustration 3

Company A has a Beta of 1.3.

Company B has a Beta of 1.2.

Government bonds are currently trading at 5%.

The average market risk premium is 6%.

Calculate the Cost of Equity using CAPM for each company.

Objective Test Questions

1. Which of the following statements about 'systematic risk' are correct when referring to the capital assets pricing model?

- A. Systematic risk affects the overall market, not just a particular stock or industry.
- B. Systematic risk is company or industry specific risk.
- C. Systematic risk is risk that can be diversified away by investors.
- D. Systematic risk is determined by the gearing of the company.

2. Company Alpha has a Beta of 1.1. Government bonds are currently trading at 4%. The average market risk premium is 7%.

What is the cost of equity using the capital assets pricing model?

- A. 12.2%
- B. 11.7%
- C. 7.3%
- D. 11.4%

3. Which of the following statements about 'unsystematic risk' are correct when referring to the capital assets pricing model?

- A. Systematic risk affects the overall market, not just a particular stock or industry.
- B. Systematic risk is company or industry specific risk.
- C. Systematic risk is risk that can be diversified away by investors.
- D. Systematic risk is determined by the gearing of the company.

4. Which of the following are downsides of the capital assets pricing model (CAPM)?

- 1. The Beta used is calculated using historic data.
- 2. The dividend growth is based on historic data.
- 3. The assumptions it makes are not necessarily reflected in reality.
- 4. The share price fluctuates on a daily basis.

- A 1 and 2 only
- B 1 and 3 only
- C 2 and 3 only
- D 1 and 4 only

Lecture 22

Risk Adjusted WACC

Illustration 1

Company A intends to undertake a project in an unrelated industry.

The following details are relevant:

Item	Company A	Proxy Company
Equity Beta (β_e)	1.2	1.4
Value of Equity	1000	800
Value of Debt	400	500

The risk free rate is 4%.

The average return on the market is 12%.

The post tax cost of debt is 7%.

Calculate the risk adjusted WACC to be used in evaluating the project.

Ignore Tax

Illustration 2

Company A intends to undertake a project in an unrelated industry.

The following details are relevant:

Item	Company A	Proxy Company
Equity Beta (β_e)	1.1	1.3
Value of Equity	1200	900
Value of Debt	500	450

The risk free rate is 4%.

The average return on the market is 12%.

The tax rate is 30%.

The post tax cost of debt is 8%.

Calculate the risk adjusted WACC to be used in evaluating the project.

Illustration 3

Company A intends to undertake a project in an unrelated industry.

The following details are relevant:

Item	Company A	Proxy Company
Equity Beta (β_e)	1.2	1.4
Value of Equity	1500	1300
Value of Debt	300	600

The risk free rate is 4%.

The average return on the market is 12%.

The tax rate is 30%.

The post tax cost of debt is assumed to be the same as the risk free rate.

Calculate the risk adjusted WACC to be used in evaluating the project using the previous method we have used and then Miller & Modigliani's formula.

Illustration 4

	Company A	Company B
Debt/Equity	1/3	1/4
Equity Beta	1.2	
Debt Beta	0.3	0.3

Calculate the Equity Beta for Company B.

Objective Test Questions

1. Company Alpha is financed with \$1,000 of equity and \$400 of debt and intends to undertake a project in an unrelated industry. They have identified Horizon Co. as a company in the new industry with \$700 of equity and \$300 of debt. Alpha Co. has a Beta of 1.3 whereas Horizon Co. has a Beta of 1.2. The risk free rate is 4% and the average return on the market is 12%. The tax rate is 30%.

Which of the following would be the project specific discount rate for Alpha Co. when entering the new industry?

- A. 12.34%
- B. 10.25%
- C. 11.12%
- D. 13.42%

2.

	Company A	Company B
Debt/Equity	20/80	40/60
Equity Beta	1.15	
Debt Beta	0.5	0.5

What is the Equity Beta for Company B.

- A. 1.12
- B. 0.92
- C. 0.2
- D. 1.53

3. Company A	Company B	
Debt/Equity	30/70	10/90
Equity Beta	1.3	
Debt Beta	0.4	0.4

Tax rate is 30%

What is the Equity Beta for Company B.

- A. 1.14
- B. 1.09
- C. 1.12
- D. 1.00

Lecture 24 - Mergers & Acquisitions I

Objective Test Questions

1. Entities will often diversify into unrelated industries in order to reduce risk by investment in uncorrelated industries. Which of the following statements is NOT a valid criticism of this strategy?
 - A. Investors can diversify their own portfolios if they want to spread their investment risk.
 - B. Investors will have invested in the company to get exposure to the current industry.
 - C. Management may not have the expertise in the unrelated industry required to make the investment successful.
 - D. The current management in the target entity may not want the acquisition to happen.

2. Which of the following is unlikely to be a valid reason for undertaking a merger or acquisition?
 - A. The target entity has substantial assets and a low share price.
 - B. An entity identified previously as a potential target has released a popular new product leading to an increase in their share price.
 - C. The target entity has a patented manufacturing process that will improve the output of our factory by 30%.
 - D. The combined entity will be able to take advantage of a bulk buying discount of 10% on all raw materials.

3. Many mergers and acquisitions are subsequently found to have reduced shareholder wealth rather than increase it. Which of the following is most likely to result in such a situation.
 - A. The predator company has an overvalued share price used to purchase the target in a share for share exchange.
 - B. The combined entity experiences operating synergies.
 - C. The target entity has recently reduced their dividend payout ratio to 30% from 50%.
 - D. The target and predator entities have are both bureaucratic and been established for over 50 years.

4. Which of the following is not one of Drucker's 'Golden Rules' for integration of a merged or acquired entity into the group?

- A. Ensure that there are common goals across the combined entity.
- B. Treat the products and services in the target entity with respect.
- C. Replace the current management with new board members.
- D. Ask 'What can we do for them?' to integrate more smoothly.

5. Which of the following would NOT be a considerations when considering a take-over target?

- A. The country in which the potential target is located.
- B. The regulations around competition in the locations where the combination intends to operate.
- C. The ability of the current management team in the target entity.
- D. The potential effect on the share price when the intention to merge is announced to the stock market.

Lecture 25 - Mergers & Acquisitions II

Illustration 1

Company A has 100m shares at £3 each. Company B has 50m shares of £1 each.

Company A makes an offer of 1 new shares for every 5 held in B and has worked out that the synergies available are valued at £20m

Calculate the expected value of a share in the combined company.

Illustration 2

	Post Tax Profit	P/E Ratio	Pre Aq. Value
Company A	£150m	10	£1500m
Company B	£10m	7	£70m

Estimating the post acquisition value of the combined business is done by applying the P/E ratio of Company A to the combined earnings of the new combination.

Objective Test Questions

1. Which of the following statements is INCORRECT?

- A. Synergies are always created when two companies merge.
- B. Operating synergies are savings made through efficiencies or improvements in operation after merger.
- C. Financial synergies such as diversification can increase shareholder wealth.
- D. An entity with a significant cash surplus may be under pressure to identify a target for takeover.

2. Adro Co. has 4m shares in issue at a current share price of \$3.20. Basto Co. has 2m shares valued at \$2.10. Adro Co. has identified Basto Co. as a take-over target and has proposed offering a 1 for 2 share exchange. They feel that synergies of \$820,000 will be created if the merger goes ahead. What will the share price in the combination be?

- A. \$17.8
- B. \$3.56
- C. \$3.40
- D. \$2.42

3.	Post Tax Profit	P/E Ratio
Company A	\$400m	15
Company B	\$50m	12

Estimate the post acquisition value of the synergies created by the combination using the 'bootstrapping method.

- A. \$175m
- B. \$6,600m
- C. \$6,750m
- D. \$150m

4. Groucho Co. has just made a bid for Marx Co. of \$4.53 per share which has been announced to the stock exchange.

Which THREE of the following defence methods could be employed by the board of Marx Co. to prevent the take-over?

- A. Poison Pill Strategy
- B. Appeal to the shareholders
- C. White Knight Strategy
- D. Super majority for takeover
- E. Counter-bid

5. Which of the following statements related to Management Buy Outs is NOT correct?

- A. The MBO may result in greater flexibility as the business is no longer constrained by head office.
- B. The management may be more likely to make the business successful as they have more motivation to succeed.
- C. An MBO should lead to greater economies of scale due to increased buying power.
- D. MBOs are often financed by venture capital and mezzanine finance.