UNIT 4

The Business Guys

Chapter 11
Ratio Analysis

RATIO ANALYSIS

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Chapter 11 – Accounting (Ratio Analysis)

All ratios have to given as something to one e.g. X:1 or 2:1 etc...
Give answers to two decimal places or else you will lose marks
Always the same format: formula -> figures -> answer

2015 Q3 – Short

Using the figures below, calculate the Net Profit Percentage (Margin) of Auburn Publishing Ltd for 2014:

Sales	Gross Profit	Expenses
€50,000	€22,000	€12,000

(b) If the Net Profit Percentage for 2013 was 25%, outline how management could use this information in making decisions.

Formula – (Net profit / Sales) X 100

Gross Profit 22,000 – Expenses 12,000 = Net Profit of €10,000

(Net Profit 10,000 / Sales 50,000) x 100 = **20%**

(b) The Net Margin has fallen by 5% showing that the firm's profitability has **decreased**.

Management could try to lower its costs by deciding to cut wages or **source cheaper raw materials**, or it should try to **increase sales revenue** through advertising.

2011 – Short Q2

(a) Explain the term 'Return on Investment' (ROI).

(b) Using the figures below calculate the ROI for 'Natural Options Ltd.'.

Net Profit	€ 57,000	Ordinary Share Capital	€ 140,000
Reserves	€ 56,000	Long Term Loan	€ 24,000

ROI is the **net profit** a business generates from the **total finance used** by the business (**capital employed**).

It measures the **profitability of a business**, compared with the **money invested in it.**

(b) $ROI = \dfrac{\textbf{Net Profit}}{\textbf{Capital Employed}} \times 100 = \dfrac{€57{,}000}{€140{,}000 + €56{,}000 + €24{,}000} \times 100$

= 25.91% or 26%

2013 Q3 – Short

(a) Using the figures below calculate the **Current Ratio** for 'Sentry Ltd'.

Debtors	**€12,000**	**Bank Overdraft**	**€20,000**
Cash	**€15,000**	**Creditors**	**€50,000**
Closing Stock	**€ 8,000**		

(b) Comment on the liquidity position of Sentry Ltd:

(a) **Formula: Current Assets: Current Liabilities**
Current Assets = Debtors, Cash and Stock
Current Liabilities = Bank Overdraft and Creditors
€12,000 + €15,000 + €8,000 : €20,000 + €50,000 = €35,000 : €70,000 = **.5 : 1**

(b) Sentry Ltd has not managed to attain the **recommended current ratio of 2:1**. (It's ratio is far below ideal at .5:1)

Sentry Ltd will have **difficulty in raising cash quickly** (**liquidity** problems) and **paying its bills as they fall due**.

2016 Q5 – Short

(a) Using the figures below, calculate the Debt/Equity ratio (Gearing) of Lalco Ltd. for 2015. (Show your formula and workings.)

Reserves	Long-term Loan	Ordinary Share Capital
€130,000	€700,000	€220,000

(b) Outline whether Lalco Ltd. is highly geared or lowly geared **and** the possible effect this result has on the business.
MS: (a) Formula 2m; Workings 2m; Answer 2m (b) 4m (2+2)

(a) Debt Capital: Share Capital + Reserves
700,000:220,000 + 130,000
700,000:350,000 = 2:1

(b) Lalco Ltd. is **highly geared** – this means the firm has to make **high interest payments** resulting in **low/no dividend payments** to shareholders. Assets may be used as **security/capital repayment** required/ May impact on **ability to borrow** in the near future/ Impact on the **firm's profits/cash flow**.

2012 Q5 (B)

The average performance of companies in the same industry as Bianua Ltd for 2011 is detailed in the table as follows:

Industry Average Results 2011	
ROI	11%
Current Ratio	2:1
Acid Test Ratio	1.2:1
Debt/Equity Ratio	0.3:1

The following figures are taken from the final accounts of Bianua Ltd for 2011.

Bianua Ltd figures for 2011	€
Net Profit	50,000
Sales	975,000
Current Assets (including closing stock)	155,000
Long Term Loan	300,000
Ordinary Share Capital	500,000
Current Liabilities	85,000
Retained Earnings	100,000
Closing Stock	80,000

(i) Calculate the following for 2011 for Bianua Ltd:
- Return On Investment (ROI)
- Current Ratio
- Acid Test Ratio
- Debt/Equity Ratio. (20 marks)

MS: Ratio formula 1m each & calculation (5m + 3m + 4m + 4m)

Return on Investment
(Net Profit / Capital Employed (Ordinary share capital + Retained Earnings + Long Term Loan)) x 100

50,000 / (500,000 + 100,000 + 300,000) = (50,000 / 900,000) x 100 = **5.56%**

Current Ratio
Current Assets: Current Liabilities

155,000 : 85,000 = **1.82:1**

Acid Test Ratio
(Current Assets – Closing Stock) : Current Liabilities

(155,000 – 80,000) : 85,000 = 75,000 : 85,000 = **0.88:1**

Debt Equity Ratio
Debt Capital / Equity Capital (Ordinary share capital + Retained Earnings)

300,000 : (500,000 + 100,000) = 300,000 : 600,000 = **0.5:1**
(This should be written as a ratio i.e. something to one, or x:1)

(ii) Analyse the *profitability* **and** *liquidity* of Bianua Ltd for 2011, with reference to the industry average results shown in the box above, **and** make recommendations for Bianua Ltd. (20 marks)
MS: 10m each – (3m + 2m + 2m + 3m) x 2

Profitability
The ROI for Bianua Ltd is 5.6%, which measures the return on capital for investors in a business.
This is half the average performance of companies in the same industry.
However, it is a new company and its ROI still compares favourably with the prevailing interest rates currently available on deposit accounts e.g. Savings/Deposit accounts available currently around 2%.

Recommendation for Bianua Ltd
Bianua Ltd will want the ROI to be as high as possible and to remain above the bank interest rate.
To improve its position it needs to **reduce its capital employed figure** or **improve its net profit** by for e.g. **controlling its expenses** e.g. **cut wages/overheads** or trying to increase its sales e.g. **better advertising campaigns.**

Liquidity
The Current ratio - The average industry **has the ideal ratio of 2:1**.
Maintaining this healthy working capital is essential for a businesses' cash flow.
Bianua Ltd has €1.82 available to pay for every €1 owed (1.82:1), a little below the ideal of 2:1.

The Acid test ratio - In 2011 the average industry result was 1.2:1.
The situation for Bianua Ltd in 2011 was 0.88:1.
Neither Bianua Ltd or the Industry average manages to attain the **ideal acid test ratio of 1:1.**
The industry has some **idle resources**; however it is **able to pay its short term debts as they fall due**.
On the other hand Bianua Ltd may have **difficulty raising cash quickly** to pay its bills as they fall due.
Failure to improve on this could result in Bianua Ltd **having difficulty in buying goods on credit in the future** or them facing **liquidation**.

Recommendation for Bianua Ltd
They should **sell slow moving stock at a discount**
Budget better: **Cash flow forecasting** to avoid **future** liquidity problems.
Effective **credit control** will reduce the risk of bad debts e.g. **check credit rating, reduce credit limits** etc…

This type of question also came up in 2010 and 2017, but asked you to analyse the trends for different stakeholders and for two limitations of the trends

2010 Q5 (B)

From the figures given below for **2009 calculate** the following for CES Ltd.:
(i) Net profit margin; **(iii)** Acid Test ratio;
(ii) Current ratio; **(iv)** Debt Equity ratio.
2010 Q5 (C)
Analyse the significance of the trends over the two years (2008/2009) for the following stakeholders:
(i) Investors/shareholders; **(ii)** Suppliers; **(iii)** Employees.

2017 Q6 (B)

From the figures given below for **2016 calculate** the following for Equinox Design Ltd. (show your workings):
(i) Net profit margin; **(iii)** Return on Investment
(ii) Current ratio; **(iv)** Debt Equity ratio. (20m)

Equinox Design Ltd: Information for 2016	Equinox Design Ltd: Results for 2015

Sales	€200,000	Net Profit Margin	20.5 %
Net Profit	€30,400	Current Ratio	2:1
Current Assets	€20,000	Return on Investment	8%
Current Liabilities	€16,000	Debt/Equity Ratio	0.7:1
Issued Ordinary Share Capital	€300,000		.
Long-Term Loan	€400,000		
Retained Earnings	€60,000		

2017 Q6 (C)

(i) Analyse the profitability and liquidity of Equinox Design Ltd for 2016, with reference to the results for 2015 shown in the box above.
(ii) Should Equinox Design Ltd expand its business? Outline **one** reason for your answer.
(iii) Outline **two** limitations of using ratios to analyse the final accounts of a business. (25m)

2018 Q7 - Short

(a) Explain the term **working capital**
(b) Outline two problems caused by insufficient working capital for a start-up business
MS: (2+2); 2@3
No marks awarded for just repeating the explanation in (a)

(a) The level of cash available for the **day by day** running of a business/ the level of cash available to run the business in the **short run**/It is used to **pay current liabilities** such as creditors, bank overdraft, accruals/Working Capital is **calculated by subtracting current liabilities from current assets.**

(b) It directly **affects the liquidity position** of the business. There will be a cash flow problem. This may make it more difficult to acquire loans/Short term funding problem/ Credit worthiness is reduced.

The **objectives of the business cannot be achieved**. Short term needs such as the purchase of stock and payment of wages cannot take place.

The **short term liabilities cannot be met on time**. This will mean a lack of cash available to the business and will delay customer orders being met/ suppliers may no longer supply goods on credit/service suppliers may cut off essential services such as electricity etc.

Sometimes, **business opportunities** like **cash or trade discounts** cannot be availed of by the business

Production capacity is not fully utilised resulting in **low levels of production**. This may lead to failure to meet the regular consumer demands and consumers may switch to competitors

The business may be overtrading (carrying on too much business for the level of working capital available), which could result in closure.

2014 Q5 (B) The following figures are taken from the final accounts of Flame Ltd for 2013.

Flame Ltd	**2013**
	€
Authorised Share Capital	**900,000**
Issued Share Capital	**450,000**
Long Term Loan	**200,000**
Retained Earnings	**150,000**

(i) Explain the term 'Debt/Equity Ratio'.
(ii) Calculate the Debt/Equity Ratio for 2013. **Show your workings.**
(iii) Discuss the importance of the Debt/Equity Ratio when deciding on new sources of finance for Flame Ltd. (20 marks)
MS: (i) 4m (2m + 2m) (ii) 10m (Formula 2m, 3 figures @ 2m, answer 2m) (iii) Importance 6m (3m + 3m)

(i) The debt/equity ratio analyses the **capital structure** of the business. It indicates what **proportion** of capital is made up of **long term loans (Debt)** and what proportion of capital is made up of **reserves and issued ordinary share capital (Equity).**

(ii) **Formula - Debt Capital : Equity Capital**
200,000 : (450,000 + 150,000)
200,000 : 600,000
= .33 : 1

The Authorised Share Capital figure should never be used in a calculation. This figure is the value of shares the business is <u>allowed</u> to sell, whereas Issued Share Capital is the actual value of shares sold at that point so should be used

(iii) The ratio shows **if the business already relies too much on finance from Debt compared to Equity**. If it has more debt than equity, it would be called highly geared, which would be important when deciding on new sources of finance as **more debt would not be favorable**.

Flame Ltd is a **lowly geared** company (.33:1 is less than 1:1)
Flame Ltd can raise further capital by selling shares to the value of €450,000 (Authorised €900,000 – Issued €450,000).

Raising finance through additional loans is an option for Flame Ltd because it does **not have too many existing loans already**, as it is lowly geared.

This type of question also came up in 2009, but asked you to analyse the trends over different years

2009 Q5 (C) Using the figures given below calculate the Debt/Equity ratio of SES Ltd for the years 2006 **and** 2007

	2006	**2007**
Long Term Loans	300,000	364,000
Ordinary Share Capital	450,000	450,000
Retained Earnings	50,000	70,000

Comment on the significance of the trend in the Debt/Equity ratio over the two years for the existing shareholders (20 marks)