KS:ACMEFSA

SCHOOL OF ACCOUNTANCY

BACHELOR OF ARTS IN ACCOUNTANCY

ACCOUNTING METHODS

(Week Beginning 15th October 1990)

Topic: Financial Statement Analysis

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1. **Purpose of financial statement analysis:**

To assess:
- past performance
- current position
- future potential (and risk)

2. **Ratios:**

Three categories:
- short-term solvency
- profitability
- long-term solvency

3. **Short-term solvency**

(i) Current ratio $= \dfrac{\text{current assets}}{\text{current liabilities}}$

Firm A	Firm B
$= \dfrac{(1,000 + 1,000 + 1,000)}{(1,500 + 500)}$	$= \dfrac{(6,500 + 8,500 + 7,000)}{(5,000 + 6,000)}$
$= 1.5:1$	$= 2:1$

(ii) Quick ratio/acid-test ratio

$$= \frac{\text{current assets less inventory}}{\text{current liabilities}}$$

Firm A	Firm B
$= \dfrac{3,000 - 1,000}{2,000}$	$= \dfrac{22,000 - 7,000}{11,000}$
$= 1:1$	$= 1.36:1$

iii) (a) Receivable turnover/debtors turnover

$$= \frac{\text{credit sales}}{\text{average debtors}}$$

$$= \frac{\text{credit sales}}{\dfrac{\text{debtors b/f + debtors c/f}}{2}}$$

iii) (a) cont.

	Firm A		Firm B
=	$\frac{52,000}{1,000}$	=	$\frac{88,000}{8,500}$
=	52 times	=	10.4 times

(b) Collection period

$$= \frac{365 \text{ days}}{\text{debtors turnover}}$$

	Firm A		Firm B
=	$\frac{365}{52}$	=	$\frac{365}{10.4}$
=	7 days	=	35 days

(iv) Inventory turnover

$$= \frac{\text{Cost of goods sold}}{\text{average inventory}}$$

$$= \frac{\text{Cost of good sold}}{\frac{\text{inv b/f + inv c/f}}{2}}$$

	Firm A		Firm B
=	$\frac{36K}{1K}$	=	$\frac{63K}{7K}$
=	36 times	=	9 times

4. **Profitability**

(i) Profit margin on sale

$$= \frac{\text{net profit}}{\text{sales}}$$

	Firm A		Firm B
=	$\frac{4,800}{52,000} \times 100$	=	$\frac{5,400}{88,000} \times 100$
=	9.2%	=	6.1%

(ii) Asset turnover

$$= \frac{\text{sales}}{\text{average total assets}}$$

$$= \frac{\text{sales}}{\frac{\text{assets b/f + assets c/f}}{2}}$$

Firm A	Firm B
$= \frac{52,000}{25,000}$	$= \frac{88,000}{66,000}$
= 2.08 times	= 1.33 times

(iii) Return on investment (ROI)

$$= \frac{\text{net profit + taxes + interest expense}}{\text{average total assets}}$$

$$= \frac{\text{profit before interest and taxes}}{\frac{\text{assets b/f + assets c/f}}{2}}$$

$$\text{ROI} = \frac{\text{net profit before interest and taxes}}{\text{sales}} \times \frac{\text{sales}}{\text{assets}}$$

Firm A	Firm B
$= \frac{4,800 + 800 + 400}{25,000} \times 100$	$= \frac{5,400 + 4,400 + 4,200}{66,000}$
= 24%	= 21%

5. **Long-term solvency**

(i) Debt-equity ratio

$$= \frac{\text{total liabilities}}{\text{owner's equity}}$$

Firm A	Firm B
$= \frac{4,800 + 800 + 400}{400}$	$= \frac{5,400 + 4,400 + 4,200}{4,200}$
= 15 times	= 3 times

6. **Conclusion**

7. **Tutorial Questions**

1) Hoggett & Edwards, p.954, Discussion question 7,8.

2) Hoggett & Edwards, p.955, Exercise 21.4.

3) Hoggett & Edwards, p.965, problem 21.7.

4) Hoggett & Edwards, p.968, problem A21.2

   Leave out the following ratio calculations:

   B) Rate of return on ordinary shareholders equity
   D) Earnings per share
   F) Dividend yield
   G) Dividend payout

   Treat the following accounts as capital contributed by the owner of Norfolk Ltd:

   - Paid-up preference capital (9%, $2 per value)
   - Paid-up ordinary capital ($1 per value)
   - Share premium reserve

   Comment on the financial position of the firm based on the ratios you have computed.

LECTURE EXAMPLE 1

Firms A and B are in the retail food industry.

Balance Sheet as at 31/12/89

	A	B
Assets		
Cash	$ 1,000	$ 6,500
Debtors (net)	1,000	8,500
Inventory	1,000	7,000
Plant & equipment (net)	19,000	37,000
Other assets	3,000	7,000
Total assets	**$ 25,000**	**$ 66,000**

Liabilities and equity

	A	B
Creditors	$ 1,500	$ 5,000
Short-term loan	500	6,000
Long-term loan	9,000	32,000
Capital	9,000	14,000
Accumulated profit	5,000	9,000
Total	**$ 25,000**	**$ 66,000**

Pt 2 Statement for the Year Ended 31/12/89

	A	B
Sales	$ 52,000	$ 88,000
CGS	(36,000)	(63,000)
Gross Profit	**16,000**	**25,000**
Selling and admin. expenses	(10,000)	(11,000)
Interest expense	(400)	(4,200)
Net profit before taxes	5,600	9,800
Income taxes	(800)	(4,400)
Net profit after taxes	**$ 4,800**	**$ 5,400**