

Chapter 02 - Evaluating Financial Performance

**Chapter 02**  
**Evaluating Financial Performance**

**Multiple Choice Questions**

1. The most popular yardstick of financial performance among investors and senior managers is the:

- A. profit margin.
- B. return on equity.
- C. return on assets.
- D. times burden covered ratio.
- E. earnings yield.
- F. None of the above.

2. Which of these ratios, or levers of performance, are the determinants of ROE?

- I. profit margin
- II. financial leverage
- III. times interest earned
- IV. asset turnover
- A. I and IV only
- B. II and IV only
- C. I, II, and IV only
- D. I, II, and III only
- E. I, III, and IV only
- F. I, II, III, and IV

3. Ratios that measure how efficiently a firm manages its assets and operations to generate net income are referred to as \_\_\_\_\_ ratios.

- A. asset turnover and control
- B. financial leverage
- C. coverage
- D. profitability
- E. None of the above.

4. Which of the following ratios are measures of a firm's liquidity?

- I. fixed asset turnover ratio
- II. current ratio
- III. debt-equity ratio
- IV. acid test
- A. I and III only
- B. II and IV only
- C. III and IV only
- D. I, II, and III only
- E. I, III, and IV only

5. Ptarmigan Travelers had sales of \$420,000 in 2010 and \$480,000 in 2011. The firm's current accounts remained constant. Given this information, which one of the following statements must be true?

- A. The total asset turnover rate increased.
- B. The days' sales in receivables increased.
- C. The inventory turnover rate increased.
- D. The fixed asset turnover decreased.
- E. The collection period decreased.

6. Which one of the following ratios identifies the amount of assets a firm needs in order to generate \$1 in sales?

- A. current ratio
- B. debt-to-equity
- C. retention
- D. asset turnover
- E. return on assets

7. Assume you are a banker who has loaned money to a firm, but that firm is now facing increased competition and reduced cash flows. Which one of the following ratios would you most closely monitor to evaluate the firm's ability to repay its loan?

- A. current ratio
- B. debt-to-equity ratio
- C. times interest earned ratio
- D. times burden covered ratio
- E. None of the above.

8. Breakers Bay Inc. has succeeded in increasing the amount of goods it sells while holding the amount of inventory on hand at a constant level. Assume that both the cost per unit and the selling price per unit also remained constant. All else held constant, how will this accomplishment be reflected in the firm's financial ratios?

- A. decrease in the fixed asset turnover rate
- B. decrease in the financial leverage ratio
- C. increase in the inventory turnover rate
- D. increase in the day's sales in inventory
- E. no change in the total asset turnover rate

9. Which one of the following statements is correct?

- A. If the debt-to-assets ratio is greater than 0.50, then the debt-to-equity ratio must be less than 1.0.
- B. Long-term creditors would prefer the times interest earned ratio be 1.4 rather than 1.5.
- C. The assets-to-equity ratio can be computed as 1 plus the debt-to-equity ratio.
- D. To realize the best risk and reward profile, financial leverage should be maximized.
- E. None of the above is correct.

10. On a common-size balance sheet, all accounts are expressed as a percentage of:

- A. sales for the period.
- B. the base year sales.
- C. total equity for the base year.
- D. total assets for the current year.
- E. total assets for the base year.

11. Which one of the following statements does NOT describe a problem with using ROE as a performance measure?

- A. ROE measures return on accounting book value, and this problem is not solved by using market value.
- B. ROE is a forward-looking, one-period measure, while business decisions span the past and present.
- C. ROE measures only return, while financial decisions involve balancing risk against return.
- D. None of these describe problems with ROE.
- E. All of these describe problems with ROE.

Selected financial data for Link, Inc. follows: (\$ in thousands)

	<b>2011</b>	<b>2012</b>
Sales	\$160,835	\$274,219
Cost of goods sold	\$141,829	\$209,628
Net income	-\$91,432	-\$257,981
Cash flow from operations	-\$35,831	-\$12,538
<b>Balance Sheet</b>		
Cash	\$236,307	\$164,952
Marketable securities	\$209,670	\$22,638
Accounts receivable	\$12,645	\$21,655
Inventories	\$3,971	\$40,556
Total current assets	\$462,593	\$249,801
Accounts payable	\$17,735	\$13,962
Accrued liabilities	\$27,184	\$76,596
Total current liabilities	\$44,919	\$90,558

12. The current ratio at the end of 2012 is:

- A. 10.21
- B. 2.31
- C. 2.76
- D. 10.30
- E. None of the above.

13. Which of the following statements best describes how the company's short-term liquidity changed from 2011 to 2012?

- A. Link's short-run liquidity has improved modestly.
- B. Link's short-run liquidity has deteriorated very little, but from a low initial base.
- C. Link's short-run liquidity has improved considerably, but from a low initial base.
- D. Link's short-run liquidity has deteriorated considerably, but from a high initial base.
- E. None of the above.

14. Assume a 365-day year for your calculations. The collection period in days, based on sales, at the end of 2012 is:

- A. 24.3
- B. 219.6
- C. 35.7
- D. 28.8
- E. None of the above.

15. Assume a 365-day year for your calculations. The inventory turnover, based on cost of goods sold, at the end of 2012 is:

- A. 5.2
- B. 24.3
- C. 28.8
- D. 35.7
- E. None of the above.

16. Assume a 365-day year for your calculations. The payables period in days, based on cost of goods sold, at the end of 2012 is:

- A. 5.2
- B. 24.3
- C. 28.8
- D. 35.7
- E. None of the above.

17. Assume a 365-day year for your calculations. The days' sales in cash at the end of 2012 is:

- A. 24.3
- B. 28.8
- C. 35.7
- D. 219.6
- E. None of the above.

18. The gross margin for 2012 is:

- A. -94%
- B. 13%
- C. 26%
- D. 31%
- E. None of the above.

19. The profit margin for 2012 is:

- A. -94%
- B. -57%
- C. 13%
- D. 31%
- E. None of the above.

**Short Answer Questions**

20. Answer the questions below based on the following information. Taxes are 35% and all dollars are in millions.

	<b>Suunto Inc.</b>	<b>Runrun Corp.</b>
Earnings before interest and taxes	\$280	\$294
Debt (at 10% interest)	\$140	\$840
Equity	\$560	\$210

- Calculate each company's ROE, ROA, and ROIC.
- Why is Runrun's ROE so much higher than Suunto's? Does this mean Runrun is a better company? Why or why not?
- Why is Suunto's ROA higher than Runrun's? What does this tell you about the two companies?
- How do the two companies' ROICs compare? What does this suggest about the two companies?

The financial statements for Limited Brands, Inc. follow (fiscal years ending January):

**LIMITED BRANDS, INC.**  
**BALANCE SHEETS (\$ MILLIONS)**

	2007	2006	2005
<b>TOTAL ASSETS</b>	7,093.000	6,346.000	6,089.000
<b>LIABILITIES</b>			
Long-Term Debt Due In One Year	8.000	7.000	0.000
Payables and Accrued Expenses	1,701.000	1,568.000	1,451.000
Total Current Liabilities	1,709.000	1,575.000	1,451.000
Long-Term Debt	1,665.000	1,669.000	1,646.000
Deferred Taxes	173.000	146.000	177.000
Minority Interest	71.000	33.000	33.000
Other Liabilities	520.000	452.000	447.000
<b>TOTAL LIABILITIES</b>	4,138.000	3,875.000	3,754.000
<b>TOTAL EQUITY</b>	2,955.000	2,471.000	2,335.000
<b>TOTAL LIABILITIES &amp; EQUITY</b>	7,093.000	6,346.000	6,089.000
Common Shares Outstanding	398.000	395.000	407.000

**INCOME STATEMENTS (\$ MILLIONS)**

	2007	2006
Sales	10,671.000	9,669.000
Cost of Goods Sold	6,342.000	5,920.000
Gross Profit	4,329.000	3,749.000
Selling, General, & Administrative Exp.	2,837.000	2,502.500
Operating Income Before Deprec.	1,492.000	1,246.500
Depreciation, Depletion, & Amortization	316.000	299.000
Operating Profit	1,176.000	947.500
Interest Expense	102.000	94.000
Non-Operating Income/Expense	23.000	25.000
Special Items	0.000	78.500
Pretax Income	1,097.000	957.000
Total Income Taxes	422.000	291.000
Adjusted Available for Common	675.000	666.000
Extraordinary Items	1.000	17.000
Adjusted Net Income	676.000	683.000
Dividends per share	\$ 0.60	\$ 0.61



21. Use Limited Brands, Inc.'s financial statements, above, to answer the following question. Use the company's operating profit as an approximation of its EBIT, and assume a 40% tax rate for your calculations. For the fiscal years ending in January of 2006 and 2007, calculate:

- a) Limited Brands' total liabilities-to-equity ratio;
- b) Times interest earned ratio; and
- c) Times burden covered.

22. Use Limited Brands, Inc.'s financial statements, above, to answer the following question. Use the company's operating profit as an approximation of its EBIT, and assume a 40% tax rate for your calculations. What percentage decline in earnings before interest and taxes could Limited Brands have sustained in fiscal years 2006 and 2007 before failing to cover:

- a) Interest and principal repayment requirements;
- b) Interest, principal and common dividend payments?

23. Use Limited Brands, Inc.'s financial statements, above, to prepare common-size financial statements for Limited Brands, Inc. for 2006 - 2007.

## Chapter 02 Evaluating Financial Performance **Answer Key**

### Multiple Choice Questions

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*Difficulty: 1 Easy*

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- A. current ratio
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- E. None of the above.

The times burden covered ratio is the best answer, as it indicates how well the firm's cash flows cover both debt principal and interest payments. The times interest earned ratio applies most appropriately when we are confident the firm can roll over existing debt; this is not the case here.

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8. Breakers Bay Inc. has succeeded in increasing the amount of goods it sells while holding the amount of inventory on hand at a constant level. Assume that both the cost per unit and the selling price per unit also remained constant. All else held constant, how will this accomplishment be reflected in the firm's financial ratios?

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Chapter 02 - Evaluating Financial Performance

16. Assume a 365-day year for your calculations. The payables period in days, based on cost of goods sold, at the end of 2012 is:

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18. The gross margin for 2012 is:

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- B. 13%
- C. 26%
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*Difficulty: 1 Easy*

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- Why is Suunto's ROA higher than Runrun's? What does this tell you about the two companies?
- How do the two companies' ROICs compare? What does this suggest about the two companies?

a.

	Suunto Inc.	Runrun Corp.
ROE	31%	65%
ROA	25%	13%
ROIC	26%	18%

b. Runrun's higher ROE is a natural reflection of its higher financial leverage. It does not mean that Runrun is the better company.

c. This is also due to Runrun's higher leverage. ROA penalizes levered companies by comparing the net income available to equity to the capital provided by owners and creditors. It does not mean that Runrun is a worse company than Suunto.

d. ROIC abstracts from differences in leverage to provide a direct comparison of the earning power of the two companies' assets. On this metric, Suunto is the superior performer. Before drawing any firm conclusions, however, it is important to ask how the business risks faced by the companies compare and whether the observed ratios reflect long-run capabilities or transitory events.

*Difficulty: 2 Medium*

The financial statements for Limited Brands, Inc. follow (fiscal years ending January):

**LIMITED BRANDS, INC.**  
**BALANCE SHEETS (\$ MILLIONS)**

	2007	2006	2005
<b>TOTAL ASSETS</b>	7,093.000	6,346.000	6,089.000
<b>LIABILITIES</b>			
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Payables and Accrued Expenses	1,701.000	1,568.000	1,451.000
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Minority Interest	71.000	33.000	33.000
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<b>TOTAL LIABILITIES</b>	4,138.000	3,875.000	3,754.000
<b>TOTAL EQUITY</b>	2,955.000	2,471.000	2,335.000
<b>TOTAL LIABILITIES &amp; EQUITY</b>	7,093.000	6,346.000	6,089.000
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**INCOME STATEMENTS (\$ MILLIONS)**

	2007	2006
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Depreciation, Depletion, & Amortization	316.000	299.000
Operating Profit	1,176.000	947.500
Interest Expense	102.000	94.000
Non-Operating Income/Expense	23.000	25.000
Special Items	0.000	78.500
Pretax Income	1,097.000	957.000
Total Income Taxes	422.000	291.000
Adjusted Available for Common	675.000	666.000
Extraordinary Items	1.000	17.000
Adjusted Net Income	676.000	683.000
Dividends per share	\$ 0.60	\$ 0.61

21. Use Limited Brands, Inc.'s financial statements, above, to answer the following question. Use the company's operating profit as an approximation of its EBIT, and assume a 40% tax rate for your calculations. For the fiscal years ending in January of 2006 and 2007, calculate:

- a) Limited Brands' total liabilities-to-equity ratio;
- b) Times interest earned ratio; and
- c) Times burden covered.

	FYE <u>Jan 2007</u>	FYE <u>Jan 2006</u>
a. Total liabilities-to-equity ratio	1.40	1.57
b. Times interest earned ratio	11.53	10.08
c. Times burden covered	10.35	10.08

*Difficulty: 2 Medium*

22. Use Limited Brands, Inc.'s financial statements, above, to answer the following question. Use the company's operating profit as an approximation of its EBIT, and assume a 40% tax rate for your calculations. What percentage decline in earnings before interest and taxes could Limited Brands have sustained in fiscal years 2006 and 2007 before failing to cover:

- a) Interest and principal repayment requirements;
- b) Interest, principal and common dividend payments?

	FYE <u>Jan 2007</u>	FYE <u>Jan 2006</u>
Percentage decline in EBIT before failing to cover:		
a. Interest and principal repayments:	90.3%	90.1%
b. Interest, principal and common dividend payments:	56.5%	47.7%
where dividend payments = Shares outstanding * Dividends per share	\$238.8	\$241.0

(Note that principal payment in year t equals current portion of long-term debt in year t-1.)

*Difficulty: 2 Medium*

## Chapter 02 - Evaluating Financial Performance

23. Use Limited Brands, Inc.'s financial statements, above, to prepare common-size financial statements for Limited Brands, Inc. for 2006 - 2007.

**BALANCE SHEETS (% of Assets)**

	2007	2006	2005
<b>TOTAL ASSETS</b>	100.00%	100.00%	100.00%
<b>LIABILITIES</b>			
Long-Term Debt Due In One Year	0.11%	0.11%	0.00%
Payables and Accrued Expenses	23.98%	24.71%	23.83%
Total Current Liabilities	24.09%	24.82%	23.83%
Long-Term Debt	23.47%	26.30%	27.03%
Deferred Taxes	2.44%	2.30%	2.91%
Minority Interest	1.00%	0.52%	0.54%
Other Liabilities	7.33%	7.12%	7.34%
<b>TOTAL LIABILITIES</b>	58.34%	61.06%	61.65%
<b>TOTAL EQUITY</b>	41.66%	38.94%	38.35%
<b>TOTAL LIABILITIES &amp; EQUITY</b>	100.00%	100.00%	100.00%
Common Shares Outstanding	398	395	407

**INCOME STATEMENTS (% of Sales)**

	2007	2006
Sales	100.00%	100.00%
Cost of Goods Sold	59.43%	61.23%
Gross Profit	40.57%	38.77%
Selling, General, & Administrative Exp.	26.59%	25.88%
Operating Income Before Deprec.	13.98%	12.89%
Depreciation, Depletion, & Amortization	2.96%	3.09%
Operating Profit	11.02%	9.80%
Interest Expense	0.96%	0.97%
Non-Operating Income/Expense	0.22%	0.26%
Special Items	0.00%	0.81%
Pretax Income	10.28%	9.90%
Total Income Taxes	3.95%	3.01%
Adjusted Available for Common	6.33%	6.89%
Extraordinary Items	0.01%	0.18%
Adjusted Net Income	6.33%	7.06%

Difficulty: 2 Medium