



ANALISIS KREDIT SINDIKASI

Dr. Ahmad Subagyo

Financial Ratios

- ▶ A popular way to analyze financial statements is by computing ratios. A ratio is a relationship between two numbers, e.g. If ratio of A:B = 30:10 \implies A is 3 times B.
- ▶ A ratio by itself may have no meaning. Hence, a given ratio is compared to:
 - ▶ (a) ratios from previous years – internal time series analysis
 - ▶ (b) ratios of other firms/leaders in the same industry – external cross-sectional analysis

Uses of Financial Ratios:

Within the Firm

- ▶ Identify deficiencies in a firm's performance and take corrective action.
- ▶ Evaluate employee performance and determine incentive compensation.
- ▶ Compare the financial performance of different divisions within the firm.
- ▶ Prepare, at both firm and division levels, financial projections.
- ▶ Understand the financial performance of the firm's competitors.
- ▶ Evaluate the financial condition of a major supplier.

Uses of Financial Ratios:

Outside the Firm used by

- ▶ Lenders in deciding whether or not to make a loan to a company.
- ▶ Credit-rating agencies in determining a firm's credit worthiness.
- ▶ Investors (shareholders and bondholders) in deciding whether or not to invest in a company.
- ▶ Major suppliers in deciding whether or not to grant credit terms to a company.

3. Analyzing Financial Performance: 5 Key Questions

Analyzing Financial Performance:

5 Key Questions

1. How liquid is the firm?
2. Is management generating adequate operating profits on the firm's assets?
3. How is the firm financing its assets?
4. Is management providing a good return on the capital provided by the shareholders?
5. Is the management team creating shareholder value?

How Liquid Is a Firm?

- ▶ Liquidity measures the firm's ability to pay its bills on time.
- ▶ It indicates the ease with which non-cash assets can be converted to cash, and also the ratio of non-cash assets to current liabilities.

How Liquid Is a Firm?

- ▶ Liquidity is measured by two approaches:
 - ▶ Comparing the firm's current assets and current liabilities
 - ▶ Examining the firm's ability to convert accounts receivables and inventory into cash on a timely basis

TABLE 4-1**Davies Inc. Income Statement for Year
Ending December 31, 2007 (\$ millions)**

Sales		\$ 600
Cost of goods sold		<u>460</u>
Gross profits		\$ 140
Operating expenses:		
Selling expenses	\$ 20	
General and administrative expenses	15	
Depreciation expense	<u>30</u>	
Total operating expenses		<u>\$ 65</u>
Operating income (EBIT)		\$ 75
Interest		<u>15</u>
Earnings before taxes		\$ 60
Income taxes		<u>18</u>
Net income		<u><u>\$ 42</u></u>
Number of common shares outstanding (millions)		20
Earnings per share (EPS)		\$ 2.10
Dividends per share (DPS)		\$ 0.50

TABLE 4-2 Davies Inc. Balance Sheets
(\$ millions) December 31, 2007

ASSETS

Cash		\$ 20
Accounts receivable		36
Inventories		84
Other current assets		<u>3</u>
Total current assets		\$143
Gross fixed assets	\$410	
Accumulated depreciation	<u>(115)</u>	
Net fixed assets		<u>\$295</u>
Total assets		<u>\$438</u>

DEBT AND EQUITY

Accounts payable		\$ 42
Accrued expenses		10
Short-term notes		<u>12</u>
Total current liabilities		\$ 64
Long-term debt		<u>\$171</u>
Total liabilities		\$235
Equity		
Common stockholders' equity		
Common stock—par value		\$ 11
Paid-in capital		75
Retained earnings		<u>117</u>
Total common equity		<u>\$203</u>
Total liabilities and equity		<u>\$438</u>

Measuring Liquidity: Approach 1

- ▶ Compare a firm's current assets with current liabilities
 - ▶ Current Ratio
 - ▶ Acid Test or Quick Ratio

Current Ratio

- ▶ Compares cash and current assets that should be converted into cash during the year with the liabilities that should be paid within the year
- ▶ Formula: = Current assets/Current liabilities

Davies Example:

$$\begin{aligned} &= \$143\text{M} / \$64\text{M} \\ &= \mathbf{1.67} \end{aligned}$$

Interpretation (Current ratio)

- ▶ Davies has \$2.23 in current assets for every \$1 in current liabilities.
- ▶ The average is higher than the peer group's ratio of 1.80.

Acid Test or Quick Ratio

- ▶ Compares cash and current assets (minus inventory) that should be converted into cash during the year with the liabilities that should be paid within the year.
- ▶ Formula: = Cash and accounts receivable/Current liabilities

Davies Example

$$= (\$20M + \$36M) / \$64M = 0.88$$

Interpretation (Quick Ratio)

- ▶ Davis has 88 cents in quick assets for every \$1 in current liabilities.
- ▶ Davis is less liquid compared to its peers that have 94 cents for every \$1 in current liabilities.

Measuring Liquidity: Approach 2

- ▶ Measures a firm's ability to convert accounts receivable and inventory into cash
 - ▶ Average Collection Period
 - ▶ Accounts Receivable Turnover
 - ▶ Inventory Turnover
 - ▶ Cash Conversion Cycle

Average Collection Period

- ▶ How long does it take to collect the firm's receivables?
- ▶ Formula: $\text{Accounts receivable} / (\text{Annual credit sales} / 365)$

Davis Example:

$$= \$36\text{M} / (\$600\text{M} / 365) = \mathbf{21.9 \text{ days}}$$

- ▶ Davis is faster than peers (25 days) in collecting the accounts receivable.

Inventory Turnover

- ▶ How many times is inventory rolled over per year?
- ▶ Formula: = Cost of goods sold/Inventory

Davies Example

$$= \$460\text{M} / \$84\text{M} = \mathbf{5.48 \text{ times}}$$

- ▶ # of days = 365/Inventory turnover

$$= 365/5.48 = \mathbf{67 \text{ days}}$$

- ▶ Thus Davis carries the inventory for longer time than its competitors (Competitors = $365/7 = 52$ days).

Davis vs. Peer Group: Question #1

Summary

Ratio	Davis	Peers
Current Ratio	1.67	1.80
Quick Ratio	.88	.94
Avg. Collection Period	21.9	25
Inventory Turnover (days in inventory)	5.48 (67)	7 (52)

Are the Firms' Managers Generating Adequate Operating Profits on the Firm's Assets?

- ▶ This question focuses on the profitability of the assets in which the firm has invested. We will consider the following ratios to answer the question:
 - ▶ Operating Return on Assets
 - ▶ Operating Profit Margin
 - ▶ Total Asset Turnover
 - ▶ Fixed Asset Turnover

Operating Return on Assets

- ▶ Indicates level of operating profits relative to the firm's total assets
- ▶ Formula: = Operating return/Total assets

Davies Example

$$= \$75\text{M} / \$438\text{M} = .171 \text{ or } \mathbf{17.1\%}$$

- ▶ Thus managers are generating 17.1 cents of operating profit for every \$1 of assets (peer group average = 17.8)

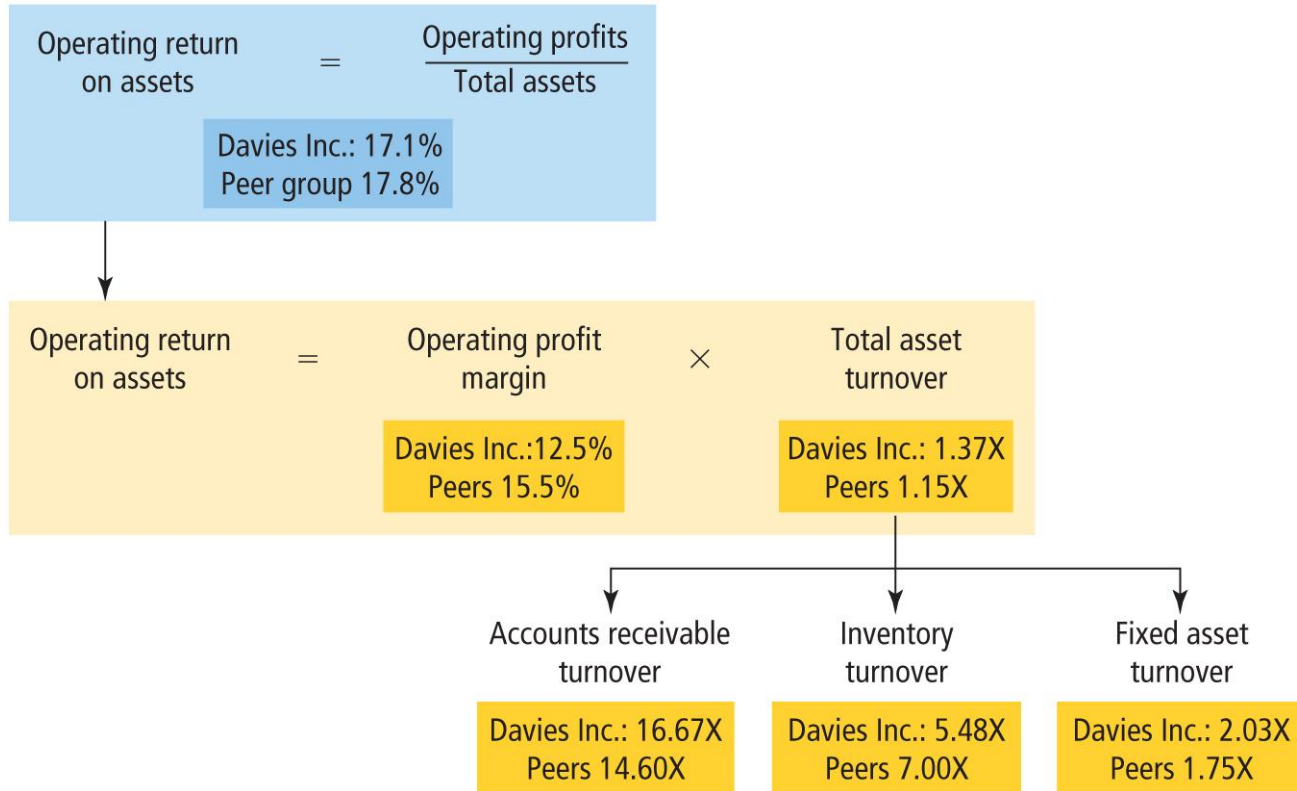
Dis-aggregation of Operating Return on Assets

▶ Operating return on assets = operating profits/total assets

= operating profit/sales * sales/assets

= operating profit margin * total asset turnover

FIGURE 4-3 Analysis of Davies Inc. Operating Return on Assets



Managing Operations: Operating Profit Margin

- ▶ Examines how effective the company is in managing its cost of goods sold and operating expenses that determine the operating profit.
- ▶ Formula: = Operating profit/Sales

Davies Example

$$=\$75\text{M} / \$600\text{M} = .125 \text{ or } \mathbf{12.5\%}$$

- ▶ Davies managers are not as good as peers in managing the cost of goods sold and operating expenses, as the average for peers is higher at 15.5%

Managing Assets: Total Asset Turnover

- ▶ How efficiently a firm is using its assets in generating sales
- ▶ Formula: = Sales/Total assets

Davies Example

$$= \$600\text{M} / \$538\text{M} = \mathbf{1.37X}$$

- ▶ Davies is generating \$1.37 in sales for every \$1 invested in assets, which is higher than the peers average of \$1.15.

Managing Assets: Fixed Asset Turnover

- ▶ Examines efficiency in generating sales from investment in “fixed assets”
- ▶ Formula: = Sales/Fixed assets

Davies Example

$$= \$600\text{M} / \$295\text{M} = \mathbf{2.03X}$$

- ▶ Davies generates \$2.03 in sales for every \$1 invested in fixed assets (peer group average = \$1.75)

Davies vs. Peer Group: Question #2 Summary

Ratio	Davies	Peer
Operating Return on Assets	17.1%	17.8%
Operating Profit Margin	12.5%	15.5%
Total Asset Turnover	1.37x	1.15x
Fixed Asset Turnover	2.03x	1.75x

How Is the Firm Financing Its Assets?

- ▶ Here we examine the question: Does the firm finance its assets by debt or equity or both? We use the following two ratios to answer the question:
 - ▶ Debt Ratio
 - ▶ Times Interest Earned

Debt Ratio

- ▶ This ratio indicates the percentage of the firm's assets that are financed by debt (implying the balance is financed by equity).
- ▶ Formula: Total debt/Total assets

Davies Example

$$= \$235\text{M} / \$438\text{M} = .54 \text{ or } \mathbf{54\%}$$

- ▶ Davies finances 54% of firm's assets by debt and 46% by equity. This ratio is higher than peer average of 35%.

Times Interest Earned

- ▶ This ratio indicates the amount of operating income available to service interest payments
- ▶ Formula: = Operating income/Interest

- ▶ Davies Example

$$=\$75\text{M} / \$15\text{M} = \mathbf{5.0X}$$

- ▶ Davies operating income are 5 times the annual interest expense or 20% of the operating profits goes towards servicing the debt.

Davies vs. Peer Group: Question #3 Summary

Ratio	Davies	Peers
Debt Ratio	54%	35%
Times Interest Earned	5X	7X

Are the Firm's Managers Providing a Good Return on the Capital Provided by the Shareholders?

- ▶ Are the earnings available to shareholders attractive? This is analyzed by computing the firm's accounting return on common stockholder's investment or return on equity (ROE).
- ▶ Formula: = Net income/Common equity
- ▶ Note, common equity includes both common stock and retained earnings

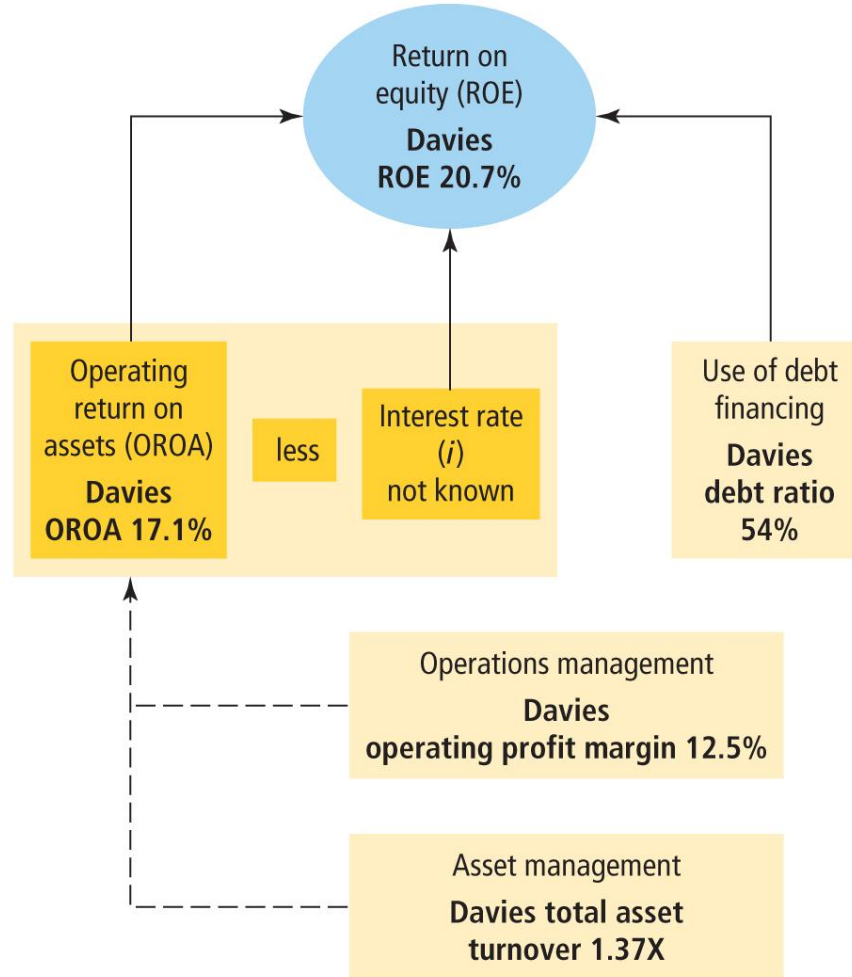
ROE

Davies Example

$$\begin{aligned}\text{ROE} &= \$42\text{M} / \$203\text{M} \\ &= .207 \text{ or } \mathbf{20.7\%}\end{aligned}$$

- ▶ Owners of Davies are receiving a higher return (20.7%) compared to the peer group (18%).
- ▶ One of the reasons for higher ROE for Davies is the higher debt used by Davies. Higher debt translates to higher ROE under favorable business conditions.

FIGURE 4-4 Return on Equity Relationships for Davies Inc.⁷



⁷ This figure is a modified format of the “DuPont Analysis”, which is provided for those interested at www.prenhall.com/keown.

Question #4 Summary: Davies vs. Peer Group

Ratio	Davies	Peers
Return on Equity	12.9%	12.0%

Are the Firm's Management Creating Shareholder Value?

- ▶ We can use two approaches to answer this question:
 - ▶ Market value ratios (P/E)
 - ▶ Economic Value Added (EVA)
- ▶ These ratios indicate what investors think of management's past performance and future prospects.

Price/Earnings Ratio

- ▶ Measures how much investors are willing to pay for \$1 of reported earnings
- ▶ Formula: Price per share/Earnings per share
- ▶ Davies Example

$$=\$32.00 / \$2.10 = \mathbf{15.24X}$$

- ▶ Investors are willing to pay less for Davies for every dollar of earnings compared to peers (\$15.24 for Davies versus \$19 for peers)

Price/Book Ratio

- ▶ Compares the market value of a share of stock to the book value per share of the reported equity on the balance sheet.

- ▶ Formula: = Price per share/Equity book value per share

- ▶ Davies Example

$$= \$32.00 / \$10.15 = \mathbf{3.15X}$$

- ▶ A ratio greater than 1 indicates that the shares are more valuable than what the shareholders originally paid. However, the ratio is lower than the S&P average of 3.70.

Economic Value Added (EVA)

- ▶ How is shareholder value created?
 - ▶ If the firm earns a return on capital that is greater than the investors' required rate of return.
- ▶ EVA attempts to measure a firm's economic profit, rather than accounting profit.
- ▶ EVA recognizes a cost of equity in addition to the cost of debt (interest expense).

EVA: Formula

▶ $EVA = (r-k) \times A$

where:

r = Operating return on assets

k = Total cost of capital

A = Amount of capital (or Total Assets)

EVA Example

- ▶ A firm has total assets of \$5,000 and has raised money from both debt and equity in equal proportion. Further, assume that cost of debt is 8% and the cost of equity is 16%. Assume the firm earns 17% operating income on its investments.
- ▶ $EVA = (17\% - 12\%) * \$5,000 = \mathbf{\$250}$
- ▶ Where, cost of capital
 $= .5*(8\%) + .5*(16\%) = 12\%$

Question #5 Summary:

Davies vs. S&P/Peers

Ratio	Davies	
Price/Earnings Ratio	15.24X	19X (Peers)
Price/Book Ratio	3.15X	3.7X (S&P 500)

4. Limitations of Financial Ratio Analysis

1. Difficult to identify industry categories or comparable peers.
2. Published peer group or industry averages are only approximations.
3. Industry averages may not provide a desirable target ratio or norm.
4. Accounting practices differ widely among firms
5. A high or low ratio does not automatically lead to a specific favorable or unfavorable conclusion.
6. Seasons may bias the numbers in the financial statements.

End Of Part Two

