Debt Management Ratios

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WHAT'S COVERED

In this lesson, you will learn about ratios that determine how effectively a company can handle its debt. Specifically, this lesson will cover:

1. Debt Ratio

Debt management ratios measure a firm's ability to repay its long-term debt. Two ratios that will be discussed today are:

- Debt ratio
- Times interest earned ratio.

The **debt ratio** is a financial ratio that indicates the percentage of a company's assets that are provided by debt. It is the ratio of the total debt, which is the sum of the current liabilities and the long-term liabilities, divided by the total assets.

FORMULA TO KNOW

Debt Ratio

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

The higher this ratio, the greater the risk is with the firm's operations. Additionally, a high debt ratio may indicate a low borrowing capacity of a firm. This, in turn, will lower the firm's financial flexibility. Like all the other ratios, a debt ratio should be compared with the industry average, or with their competition.

IN CONTEXT

Let's take a look at the balance sheet for the ABC Company.

Balance Sheet
ABC Company Inc.

		Dec. 31, 201X
Assets		
Current Assets		
	Cash	7,314
	Accounts receivable	
	Inventory	5,560
	Prepaid expenses	
	Short-term investments	
	Total current assets	12,874
Fixed (Long-Term) Assets		
	Long-term investments	2,310
	Property, plant, and equipment	14,442
	(Less accumulated depreciation)	(2,200)
	Intangible assets	
	Total fixed assets	14,552
Other Assets		
	Deferred income tax	
	Other	
	Total Other Assets	-
Total Assets		**27,426**
Liabilities and Owner's Equity		
Current Liabilities		
	Accounts payable	9,060
	Short-term loans	
	Income taxes payable	3,349
	Accrued salaries and wages	
	Unearned revenue	
	Current portion of long-term debt	
	Total current liabilities	12,409
Long-Term Liabilities		
	Long-term debt	3,450
	Deferred income tax	
	Other	
	Total long-term liabilities	3,450
Owner's Equity		
	Owner's investment	6,000
	Retained earnings	5,567
	Other	
	Total owner's equity	11,567
Total Liabilities and Owner's Equity		**27,426**

The total assets are $27,426. The total liabilities are $12,409 for the current liabilities and $3,450 for the long-term liabilities, for a total of $15,859. If we divide the total liabilities by the total assets, we get 0.58. This means that 58% of ABC's assets are financed by debt rather than by equity. Upon comparison, we may find that this is high and may limit their financial flexibility and borrowing power.

TERM TO KNOW

Debt Ratio

A ratio that indicates the percentage of a company's assets that are provided by debt.

2. Times Interest Earned Ratio

A second debt management ratio is the **times interest earned ratio**. The times interest earned, or the TIE, measures the company's ability to honor its debt payments. This is also sometimes called interest coverage.

It is calculated by dividing the EBIT, earnings before interest and taxes, by the interest charges.

FORMULA TO KNOW

Times Interest Earned Ratio

$$\text{Times Interest Earned Ratio} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

It is a great tool for measuring a company's ability to meet its debt obligations. Typically, it's a warning sign when the interest coverage falls below 2.5. When the times interest earned is less than one, the company is not generating enough cash from operations to meet its interest obligations. The company would either have to use cash on hand to make up the difference or borrow funds.

IN CONTEXT

Let's take a look at another fictitious company.

	US$ in thousands
Sales, net	45,680
Cost of sales	32,540
Gross margin	13,140
Research and development	1,350
General and administrative expenses	2,730
Operating expenses	4,080
Operating income	9,060
Interest expense	1,610
Earnings before taxes	7,450
Provision for taxes	2,100
Net income	5,350

In this simple example, we are looking for the earnings before interest and taxes. That number here is the operating income of $9,060,000, and the interest expense is $1,610,000. If we divide $9,060,000 by $1,610,000, we get 5.62. So, in this example, this company is in fairly good shape in terms of interest coverage.

TERM TO KNOW

Times Interest Earned Ratio

A ratio that measures the company's ability to honor its debt payments.

SUMMARY

In this lesson, you learned about the **debt ratio**, which measures a firm's ability to repay its long-term debt by indicating what percentage of the company's assets are provided via debt, calculated by total liabilities divided by total assets. The higher the ratio, the greater the risk associated with the operation. The **times interest earned ratio**, or T.I.E., is a measure of a company's ability to honor its debt payments. It can be calculated as earnings before interest and taxes, divided by the total interest payable. Times interest earned, also called interest coverage, is a great tool to use when measuring a company's ability to meet its obligations

Best of luck in your learning!

TERMS TO KNOW

Debt Ratio
A ratio that indicates the percentage of a company's assets that are provided by debt.

Times Interest Earned Ratio
A ratio that measures the company's ability to honor its debt payments.

FORMULAS TO KNOW

Debt Ratio

$$DebtRatio = \frac{TotalLiabilities}{TotalAssets}$$

Times Interest Earned Ratio

$$TimesInterestEarnedRatio = \frac{EBIT}{InterestExpense}$$