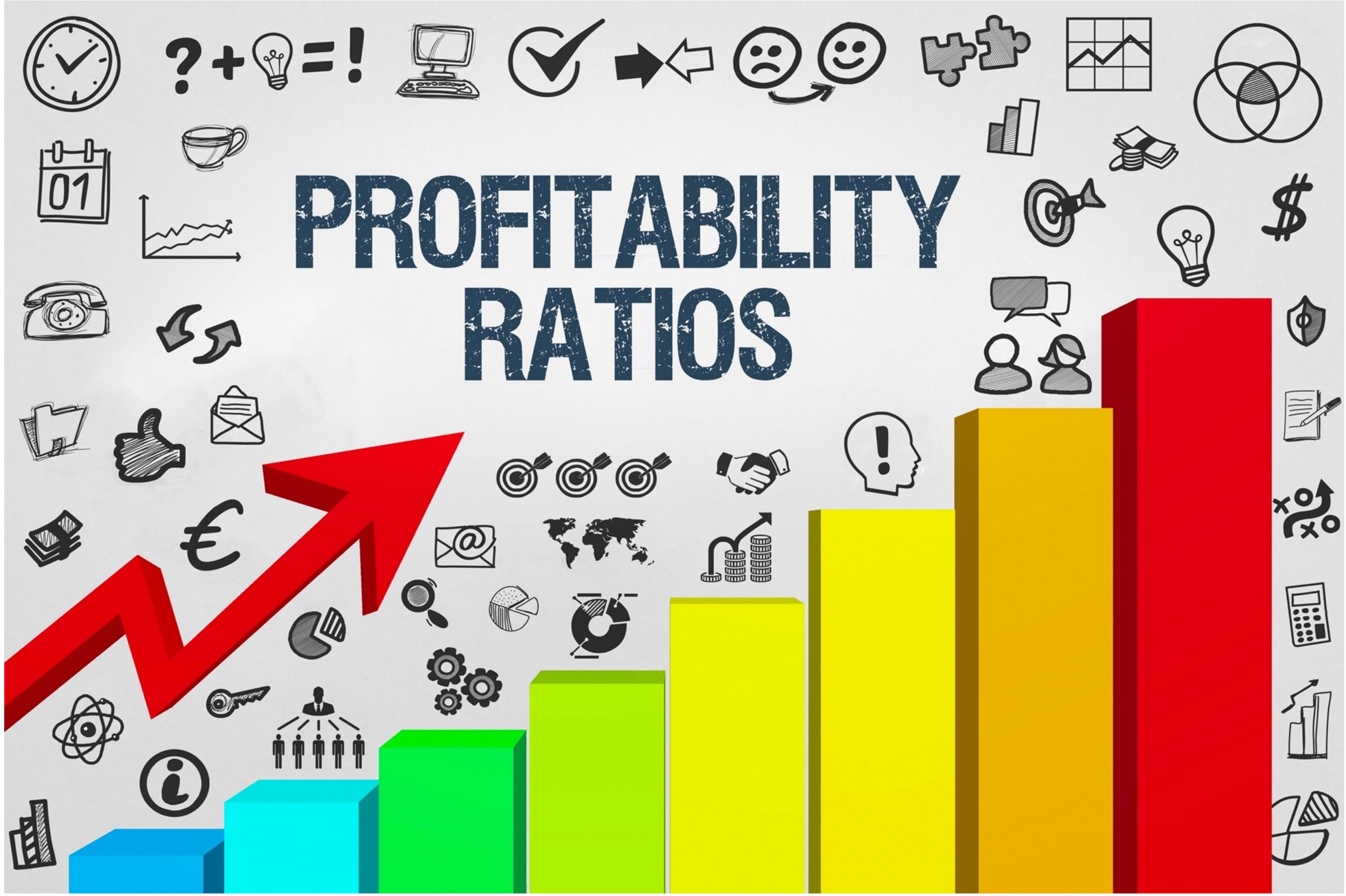
Profitability Ratios



Profitability Ratios…

There are several ratios that evaluate the level of profitability of a company:

- ✓ Gross Margin
- ✓ Operating Margin
- ✓ Net Margin

These ratios are all relative to the company’s revenues.

Gross Margin…

Gross Margin: the profit margin based on the sale of a company’s products and services.

$$\text{Gross Margin } (\%) = \frac{\text{Gross Profit}}{\text{Revenues}} \text{ x } 100$$

where:

$$\text{Gross Profit} = \text{Revenues } - \text{COGS}$$

Example: A company’s revenues are $90M. Its Cost of Goods Sold, COGS, is $56M. The company’s gross margin is:

$$\text{Gross Margin } (\%) = \frac{\$90\text{M } - \$56\text{M}}{\$90\text{M}} \text{ x } 100$$

$$\text{Gross Margin } (\%) = 37.8\%$$

Gross Margin…

Adobe

At the end of 2021:

Revenues:	$15,785M
COGS:	$ 1,865M

Gross Margin = 88%

At the end of 2021:

Revenues:	$365,817M
COGS:	$212,981M

Gross Margin = 37%

GM

At the end of 2021:

Revenues:	$127,004M
COGS:	$109,126M

Gross Margin = 14%

First Solar®

At the end of 2021:

Revenues:	$2,711M
COGS:	$2,030M

Gross Margin = 25%

Gross Margin…

Gross Margin vs. Markups

A company produces a product that costs $10 → Marketing adds a 50% markup, making the price $15 → Gross Profit from the sale is $5

↑ The $5 represents a Markup of 50%

↓ The $5 represents a Gross Margin of 33%.

Gross Margin is based on Revenues.
Markups are based on Cost.

Operating Margin…

The operating margin shows a company's profitability after covering both Costs of Goods Sold and Operating Expenses (S,G&A, R&D, Legal, HR, F&A, etc.).

$$\text{Operating Margin} = \frac{\text{Operating Income}}{\text{Revenues}}$$

Where:

Operating Income = Revenues – COGS – Operating Expenses

Operating Margin is a good indicator of how the company manages its overhead costs (all those operating expenses!).

If Gross Margins are increasing but Operating Margins are decreasing, you know you have an overhead cost problem!

Operating Margin…

Example: A company's revenues are \$90M. Its Cost of Goods Sold, COGS, is \$56M, and its Operating Expenses are \$18M.

The company's operating margin is:

$$\text{Operating Margin }(\%) = \frac{\$90\text{M} - \$56\text{M} - \$18\text{M}}{\$90\text{M}} \text{ x } 100$$

$$\text{Operating Margin }(\%) = 17.8\%$$

Net Margin…

The profit margin taking all expenses into account. This is really the “bottom line” in terms of profitability.

$$\text{Net Margin} = \frac{\text{Net Income}}{\text{Revenues}}$$

Where:

Net Income = Revenues – COGS – Operating Expenses – Interest Expenses – Income Taxes

Net Income: how much *profit* the company makes; “The Bottom Line”

Net Margin: profitability, in %, based on the Bottom Line.

Net Margin…

Example: A company's income statement is summarized below:

Revenues:	$90.0M
Cost of Goods Sold:	$56.0M
Gross Profit	$34.0M
Operating Expenses:	$18.0M
Operating Income:	$16.0M
Interest Expense:	$ 1.0M
Income Before Taxes:	$15.0M
Taxes:	$ 3.2M
Net Income:	$11.8M

The company's net margin is:

$$\text{Net Margin (\%)} = \frac{\$90.0 - \$56.0\text{M} - \$18.0\text{M} - 1.0\text{M} - \$3.2\text{M}}{\$90.0\text{M}} \text{ x } 100$$

$$\text{Net Margin (\%)} = \frac{\$11.8\text{M}}{\$90.0\text{M}} \text{ x } 100$$

$$\text{Net Margin (\%)} = 13.2\%$$

Main Takeaways: Profitability Ratios

Example: A company's income statement is summarized below:

Revenues:	\$90.0M
Cost of Goods Sold:	\$56.0M
Gross Profit	\$34.0M
Operating Expenses:	\$18.0M
Operating Income:	\$16.0M
Interest Expense:	\$ 1.0M
Income Before Taxes:	\$15.0M
Taxes:	\$ 3.2M
Net Income:	\$11.8M

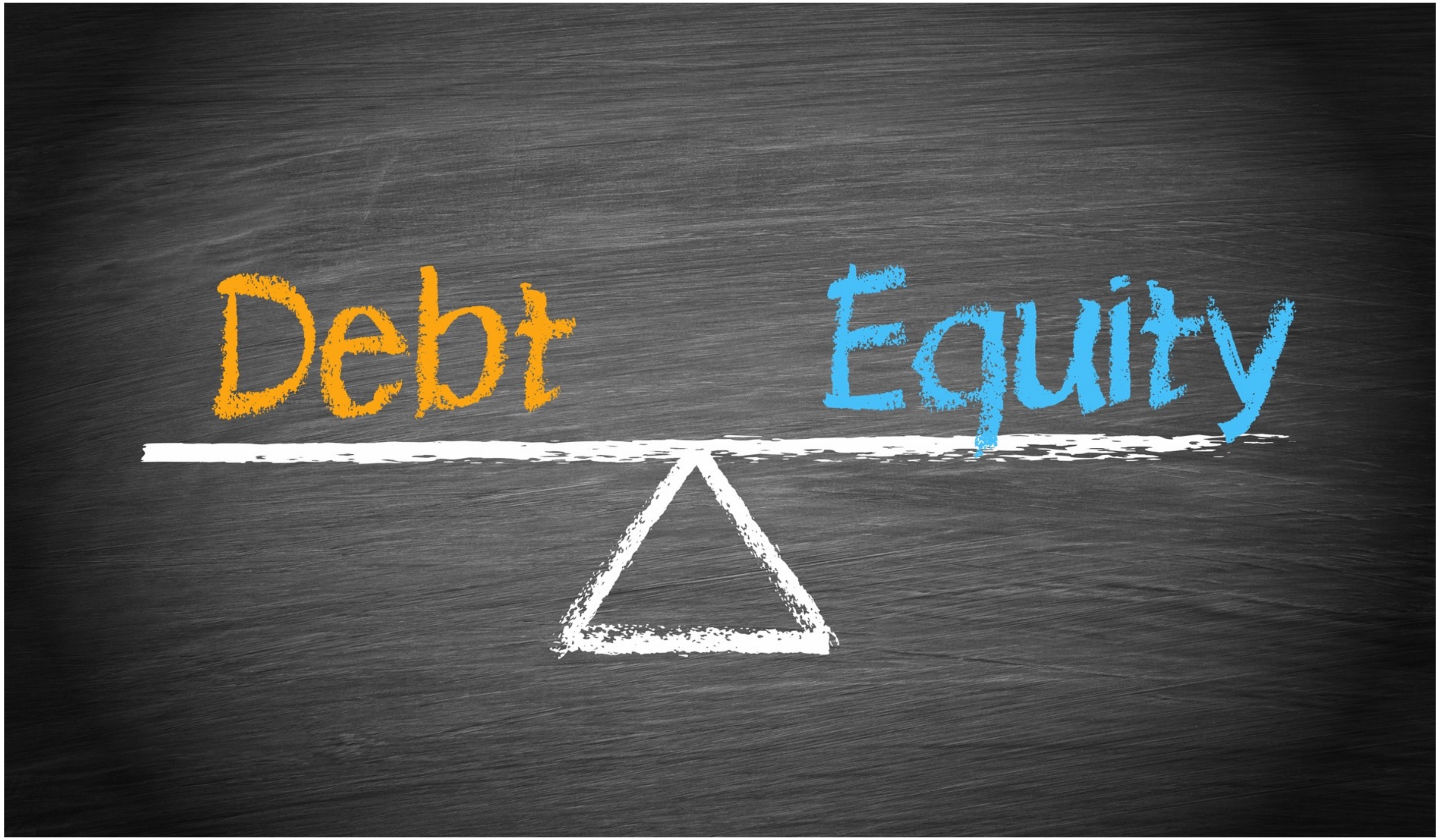
$$\text{Gross Margin (\%)} = \frac{\text{Gross Profit}}{\text{Revenues}} \times 100$$

$$\text{Operating Margin (\%)} = \frac{\text{Operating Income}}{\text{Revenues}} \times 100$$

$$\text{Net Margin (\%)} = \frac{\text{Net Income}}{\text{Revenues}} \times 100$$

Next Time…

Financial Leverage (Debt) Ratios



Credits & References

Slide 1: Profitability ratios by magele-picture, Adobe Stock (298687131.jpeg).

Slide 4: Company logo image sources: adobe.com, apple.com, gm.com, firstsolar.com (accessed June 9, 2022).

Slide 11: Debt and Equity Balance Concept by DOC RABE Media, Adobe Stock (133702617.jpeg).