The Princeton Review®

CFA LEARNING OUTCOMES DECODED

In our series *Learning Outcomes Decoded* we break down a single Learning Outcome Statement (LOS) from the CFA level 1 curriculum. John Mulcahy, CFA, FRM, is the author of this article. John is a content developer for The Princeton Review. He has been a professor of finance for over fifteen years, teaching CFA exam prep courses as well as undergraduate and master's degree courses at Hult International Business School.

FINANCIAL STATEMENT ANALYSIS: UNDERSTANDING THE INCOME STATEMENT

LOS: Evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement

---

Common-size analysis of the income statement is a simple yet powerful analytic technique. We merely restate each item on the income statement as a percentage of revenue for its period. Doing so enables us to *compare* the *relative* size of each item. Comparing across time is termed "horizontal" analysis, while comparing to peers, or industry averages, in the same period is "vertical" analysis.

Horizontal Analysis (across time periods)

Let's start with a simple horizontal analysis. Below are abbreviated income statements for Company X across a three-year period. We will just take the income statements down to EBIT to keep it simple.

Company X	Year 1	Year 2	Year 3
Revenue	$1,000	$1,300	$1,800
COGS	600	754	990
Gross Margin	400	546	810
SGA Expenses	195	276	432
EBIT	205	270	378

A quick look at the numbers above tells us Company X is growing, but it gives little insight as to *how* it is growing. Common-sizing these numbers facilitates comparison over time and yields insights.

Company X	Year 1	Year 2	Year 3
Revenue	100.0%	100.0%	100.0%
COGS	60.0	58.0	55.0
Gross Margin	40.0	42.0	45.0
SGA Expenses	19.5	21.2	24.0
EBIT	20.5%	20.8%	21.0%

The Princeton Review®

FINANCIAL STATEMENT ANALYSIS: UNDERSTANDING THE INCOME STATEMENT

LOS: Evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement

---

By common-sizing, we immediately see that our cost of goods sold is declining as a percent of sales, resulting in an increase in gross margin. That's good news. However, we see that SGA expenses are increasing as a percent of sales, from 19.5% to 24.0%. These facts are not readily discernible in the absolute numbers shown in the first table.

Vertical Analysis (against a cross-section of competitors or an industry average)

Now let's focus on year 3 and compare Company X's performance to its two closest competitors. The three companies make up a clearly definable segment of the industry. We may also choose to use an industry average of all companies in the industry.

	Company X	Company Y	Company Z
Revenue	100.0%	100.0%	100.0%
COGS	55.0	53.0	54.0
Gross Margin	45.0	47.0	46.0
SGA Expenses	24.0	27.0	27.0
EBIT	21.0%	20.0%	19.0%

Critical insights immediately appear.

- Both competitors are achieving a higher gross margin than Company X. Might they be sourcing their raw materials from a cheaper source? Or perhaps they employ more efficient means of production? Note that these vital questions can be answered, in large part, by taking the analysis to the next level of detail of the income statements.
- Both competitors have higher SG&A expenses than Company X. Company X is more efficient in these functions, so much so that they end up with a higher operating margin (EBIT%). As with the gross margin, this can be investigated in further detail and applying the vertical analysis technique.

The Princeton Review®

FINANCIAL STATEMENT ANALYSIS: UNDERSTANDING THE INCOME STATEMENT

LOS: Evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement

---

PRACTICE QUESTION

Common-size Income Statements for Lululime Enterprises and two of its competitors are shown below. Based on this data what conclusions can be drawn about Lululime's performance vs its competitors?

	Lululime	Showtime Wear	Star Activewear
Revenue	100.0%	100.0%	100.0%
COGS	55.0	57.0	59.0
Gross Margin	45.0	43.0	41.0
SGA Expenses	24.0	22.0	20.0
EBIT	21.0%	21.0%	21.0%

A. LuluLime sells more product than either of its two competitors.

B. On a relative basis, Lululime spends more of its resources on SG&A than its competitors.

C. Showtime Wear's smaller gross margin indicates a more efficient production process than Lululime's.

B is correct. Lululime spends 24.0% of its revenue on SG&A expenses, more than either of its competitors.

A is false. No conclusion can be drawn regarding absolute numbers when all are common-sized.

C is false. The smaller gross margin indicates a lower efficiency than that of Lululime.