

6.4: What do the financial statements tell us about the profitability of a company?

Learning Objectives

When students have completed this section, they will be able to:

- Calculate the gross profit margin
- Calculate the net profit margin
- Calculate the return on investment/assets
- Explain how these ratios will change and how they describe a business's profitability

Question: When I read in the news about a company they focus on the ability of the company to make a profit? We know how to calculate net income but what does that really tell us about the company?

Earlier ratios focused on the efficiency and liquidity as measured primarily on the balance sheet. Those measures are very important but when most investors are considering what company to buy stock in they are looking at the company can create the best returns on their investments. The stockholders who own the company are anxious that whatever assets the company owns and controls are generating revenues that ultimately result in profit that will allow the company to pay the owners in the form of dividends or at least an increase in the value of their investment.

The first step in considering the success of a business in generating profit is to look at the amount of sales or revenue compared to the cost of the items or services sold. So Target to be successful must be able to sell for example women's handbags for more than it cost them to buy. If they cannot do that with women's handbags and thousands of other products, all the rest of their business efforts will not be helpful. Employee training, good store lighting and an easy to use website are all about getting customers to buy products at a higher price than what Target paid for those products. But it is not just physical products, the local auto mechanic must be able to get customers to be willing to pay more for their oil change than the mechanic shop pays the employee to do the oil change plus the parts used. So our first important calculation is entirely from information on the income statement:

GROSS PROFIT = SALES/REVENUE – COST OF GOODS SOLD OR COST OF SERVICES PROVIDED

GROSS PROFIT / SALES/REVENUE = GROSS PROFIT MARGIN OR PERCENT

So our example of Target's handbag. If Target buys it for \$30 and sells it for \$40 then the gross profit is \$10 = \$40 – \$30. Dividing the \$10 by \$40 = 25 % gross profit margin or percent. If we instead of looking at one individual item consider all Target's sales for a year and subtract the costs of all those items for that same year we would get the gross profit for Target overall. According to the income statement for Target for the year ending January 28, 2023, Target sold over \$107 billion dollars in merchandise. This merchandise cost Target just over \$82 billion. So $107 - 82 = \$25$ billion in gross profit over the course of that year. The gross profit margin would be $\$25/\$107 = 23.3\%$. So on average Target is able to sell for a 23.3% gross margin or they get to keep 23.3 cents of every dollar they sell to pay for other expenses and ultimately provide return to investors.

Without a healthy gross margin there will not be enough to pay for the myriad of other expenses needed to keep the business running. Investors want to see a healthy gross profit margin when compared to other chains (like Walmart) and compared to other years. A well managed business is constantly looking for ways to improve their gross profit. Looking at our handbag example, Target could find a more efficient way of buying or shipping the handbag so the cost goes from \$30 to \$29 (increase in gross profit margin) or raise the price to customers for the handbag with the same cost (probably will only work if customers are very happy with the product). Conversely, when products or services are not enticing to customers, Target or other stores may reduce the price to customers with the same cost for the product. This will decrease the gross profit margin (handbag reduced to \$35 generate only a \$5 gross profit and gross profit margin of 14%). These types of changes positive or negative will not be material if it is only a few items but if it happens on thousands of items, Target's measure of gross profit margin for the year could change such that investors will notice.

Question: What about the expenses other than the cost of the items purchased or the cost of services provided? Aren't they important too?

While the cost of goods or services is probably the most important expense on the income statement and probably the largest, it is important to consider and measure the effect of the other expenses as well. For example Target, on the income statement ending January 28, 2023 lists additional expenses of just under \$23 billion and other revenue not from sales of products of \$1.5 billion. This excludes income taxes which are typically listed last because they are for the most part out of control of the company. So for the income mentioned above, Net Income/profit before taxes is \$25 billion gross profit less \$23 billion of other expenses plus \$1.5 billion of other revenue = \$3.5 billion for the year. Taking that \$3.5 billion profit and dividing it by the Revenues $(107 + 1.5) = 3.5 / 108 = 3\%$. This is referred to as the net profit margin. So out of all their sales Target is able to earn 3% after all expenses. This 3% can be used to pay income taxes, pay dividends to shareholders and grow the company so that the stock price will go up.

Key Takeaway

Gross profit just subtracts cost of the items sold or services provided

Net profit subtracts both the costs above and all other expenses except taxes

Some examples you see may subtract taxes to get net profit – that is important when comparing two companies.

Like our other ratios, investors may compare 2023's net profit margin to that of 2022 to see if Target was able to become more efficient in the use of its expenses and thus increase how much of their sales are available to investors or if they became less efficient. It is also straight forward to compare it to the same calculation for competitors. It is hard to think of a situation where investors would not consider a company with a higher net profit margin to be a better investment than a competitor with a lower net profit margin.

To improve their net profit margin, Target would need to lower expenses while keeping sales the same or increase sales while keeping expenses the same. Transactions that increase expenses or lower sales are going to have the opposite affect on the net profit margin.

Question: What else might be a good indication of the profitability of a business?

So far we have compared net profit and gross profit to revenues to see how successful the company is at selling products for enough to cover the cost of the items purchased and all other necessary expenses. Both of these involved only information provided on the income statement of the company. Looking at all the financial statements, we recall that the purpose for buying or creating assets is to generate revenues that result in profits. So comparing net profit to total assets would be our last calculation used to measure business profitability. Taking net profit before taxes as described above and dividing that by the total assets at the end of the year or perhaps using average total assets can give investors a good way to look at how good the business is at deploying their assets in a way that provides a return back to investors. Thus our formula is referred to as

Return on Investment or Assets

ROI OR ROA = NET PROFIT before taxes / AVERAGE TOTAL ASSETS OR ENDING TOTAL ASSETS

AVERAGE TOTAL ASSETS = (BEGINNING OF YEAR TOTAL ASSETS + ENDING OF YEAR TOTAL ASSETS) / 2

While the FASB is charged with setting accounting rules in the United States and the SEC enforces them on public companies, none of the ratios discussed are included in these rules. There is no set way of calculating them. We try to give you the most common formulas and alternatives here. When picking an alternative, the important thing is to be consistent from company to company and year to year.

Thus checking the financial statements for Target and specifically the balance sheet as of January 28, 2023, they report just over \$53 billion in total assets. The year before the total was \$54 billion. An average of the beginning of the year and end of year is $(53 + 54) / 2 = \$53.5$. Using the net profit before taxes as stated above our return on investment or return on assets = $\$3.5 / \$53.5 = 6.5\%$. This was using the average total assets. If just the ending total assets was used, the calculation would be $\$3.5 / 53 = 6.6\%$. We could say that Target makes about a 6.5% return on the assets it purchased on behalf of investors. Those investors can then compare that to what return they might get if they entrusted their money in another business to use to buy assets.

NOTE: You should make note that traditionally, all of these profitability measures are expressed as a percentage when discussed while none of the liquidity or activity ratios described in earlier sections were shown as percentages.

Real World Example

Follow along with the calculation of the profitability ratios from amounts reported on Lowe's financial statements

▢ [Lowes profitability.pdf](#)

You could say that Lowe's generated a return of 18.0% on the assets purchases on behalf of investors and that could be compared to the return generated by Home Depot or other competitors.

6.4: What do the financial statements tell us about the profitability of a company? is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.