

Inventory Turnover Ratio

Cost of Goods Sold / Cost of Average Inventory = Inventory turnover ratio

Note: Average Inventory is calculated by adding the beginning and ending inventory balances for the year and dividing by two.

The inventory turnover ratio allows a company to see how many times in a period it has sold its total inventory balance. In this case, the higher the ratio the better – as that would indicate that the company is frequently selling the total value of its inventory over the course of the period. However, a business experiencing high inventory turn rates coupled with lower than desired profits may be an indication of inadequate inventory levels. To really make sense of this ratio a company must consider its own historical ratio and the average ratio for its industry. The sporting goods industry average is about 2.5 turns per year. A ratio that is lagging behind in either regard could indicate that the store is struggling to make sales or potentially is carrying some obsolete inventory.

Gross Profit & Gross Profit Ratio

Gross Profit = Total Sales less Cost of Goods Sold

Gross Profit Margin = Gross Profit / Total Sales

Gross profit is simply how much profit a company derives from its sales after subtracting the cost of those sales (generally the cost of the inventory that was sold). Your gross profit is the total amount of income that is leftover after paying for your inventory to then cover your overhead expenses. The real analysis is found by going one step farther and calculating your gross profit ratio, which represents the percent of each gross sales dollar that is available to cover overhead expenses and ultimately make it into a company's net income. Business owners should compare their current gross profit ratio to their historical ratio and the industry average. A declining gross profit ratio would suggest that inventory costs have risen faster than sales at which point business owners would need to consider increasing their sales prices.

Overhead Expenses

Overhead Expenses are any expenses that are not directly attributable to the cost of inventory. Examples would be rent expense, depreciation expense of assets that are not directly used in the production of inventory, office supplies, utilities, etc.

Breakeven Point

A company's breakeven point is the sales volume at which they can completely cover both their cost of goods sold (COGS) and overhead expenses. To calculate this, the company must first identify its total overhead expenses, then apply its historical gross profit ratio to determine what amount of sales would generate enough gross profit to cover the overhead. See the example below:

ABC Bowshop the following monthly overhead expenses:

Rent:	\$1,000
Depreciation:	\$500
Utilities:	\$200
Wages:	\$10,000
Payroll Tax Expense	\$850
Total:	\$12,550

Their historical gross profit ratio is 40%. Therefore, to calculate their breakeven sales volume they should divide their total overhead expenses by their gross profit ratio. See below:

$$\$12,550 / 0.4 = \$31,375 \text{ breakeven}$$

To verify they calculated their breakeven correctly they can now run the scenario from sales to net income as shown below. If they did it correctly, net income should be zero. As a reminder, when running this scenario your COGS should be calculated by multiplying sales by one minus your gross profit ratio – this is essentially your cost of goods sold ratio, when you add this and your gross profit together it should equal 100% of your sales.

Total Sales:	\$31,375 (from above)
Less COGS:	<u>\$18,825</u> (Calculation: $31,375 \times [1 - 0.4]$)
Gross Profit:	\$12,550
Less Overhead Exp:	<u>\$12,550</u>
Net Income	\$ 0

Current Assets

Current assets are a company's cash and any other assets that are expected to be converted to cash within a year. Examples of current assets are accounts receivable and inventory.

Current liabilities

Amounts due to be paid within in one year

Working Capital

Working Capital = Current Assets – Current Liabilities

This ratio indicates to what extent a company has the current resources to payoff its current obligation. A large positive working capital amount would generally indicate the company is in a healthy position and able to fund future growth. Negative working capital could indicate that the company will not be able to payoff all of its current obligations using only its current resources.

Working capital can also be calculated as a ratio by dividing current assets by liabilities. In this case, a ratio of 1 or greater is ideal.

Acid Test Ratio

$$\text{Acid Test Ratio} = \frac{\text{Cash \& Cash Equivalents} + \text{Marketable Securities} + \text{Accounts Receivable}}{\text{Current Liabilities}}$$

The acid ratio is a stricter test of liquidity than working capital as it includes only a companies most liquid current assets and excludes less liquid current assets (such as inventory and prepaid expenses). Similar to the working capital ratio an acid-test ratio of one or greater is ideal.

Book (Financial) Income vs Taxable Income

Companies will frequently have differences between their book net income – which would be the net income amount shown on the financial reports they generate – and their taxable income. The potential causes of the differences are numerous. The key point to remember here that is a company should consult its tax adviser whenever they are trying to create an accurate projection of their taxable income and ultimately their tax liability.