

# The Income Statement: From Net Revenue to Net Income

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## Article Highlights

- The income statement shows the revenues, expenses and income recognized over a period of time.
- Companies use accrual accounting to show when revenues and expenses occurred, as opposed to when is transferred.
- Gross and operating margins can help reveal important trends about how a company is performing.

**T**he income statement arguably presents the most important figure that companies report—earnings per share.

Earnings results are followed closely by numerous investors, ranging from individual investors to analysts working at financial research and brokerage firms.

Earnings provide an ongoing score of a company's success or failure and are used to determine a company's value. A firm's worth is dependent on its ability to earn money and generate future cash flows; reported earnings that differ, positively or negatively, from expectations (called an earnings surprise) can cause large movements in a stock's price.

In this article, the second part in AAI's Financial Statement Analysis series, I explain how to read and analyze an income statement. I discuss the major elements found in the income statement and show how each is used in stock analysis. The first article in this series, "Introduction to Financial Statement Analysis," was published in the January 2012 *AAI Journal* and can be found at [AAI.com](http://AAI.com).

## What Is the Income Statement?

The income statement presents the financial results for a company over a specified period of time, typically one quarter or one year. The income statement presents the revenue ("sales") generated during the period, the expenses incurred and the profit earned.



The basic equation underlying the income statement is:

$$\text{revenue} - \text{expenses} = \text{income}$$

Typically, the income statement will provide the revenues followed by the cost of goods sold, the difference of which is the gross profit. Selling, general and administrative (SG&A) and other operating costs are then deducted to reach the operating income. Non-operating income and expenses, or the income and expenses that are not essential to operations, are then deducted to reach net profit. The statement is meant to be read from top to bottom, from revenue to net income. Thus, net revenue is often referred to as the "top-line" figure and net income as the "bottom-line" figure.

## Accrual Accounting

Before the income statement can be analyzed, it is crucial to understand two separate accounting methodologies. The accrual method of accounting records revenues and expenses when they are recognized, not when cash is actually transferred. Revenues are recorded when the sale has been completed, and expenses are recorded when the goods and services that generate the expenses are matched to the revenue. Alternatively, cash-based accounting records sales and expenses when cash is actually received or used.

The differences between the methodologies are best illustrated through an example. In accrual-based accounting,

credit sales are included in revenues on the income statement for the period sales are recognized and are recorded as accounts receivable (unpaid invoices owed by customers) on the assets side of the balance sheet. Similarly, accrued expenses, or the unpaid expenses incurred while generating the current revenue, are presented as expenses in the income statement and recorded as a liability on the balance sheet.

This differs from cash-based accounting, which records transactions when cash is actually used or generated. Cash accounting is used by individuals to manage their finances. When a person spends money on products, the cash transaction is recorded immediately, even if the product is one that will last several years—such as a dishwasher or a sofa.

Cash-based accounting is better at tracking cash flows. However, accrual-based accounting improves a firm's ability to match expenses with revenues. In most cases, U.S. generally accepted accounting principles (GAAP) require accrual-based accounting.

### The Five-Step Format

There are a number of income statement formats used for firms, but the five-step format is useful in explaining the information provided by the statement. In Table 1, an income statement divides the statement into five steps—revenue, gross income, operating income, income before taxes, and net income. Simply looking at the bottom-line figures may be misleading, since they can overshadow important trends. When analyzing an income statement, make sure to review each section when ascertaining a firm's financial health.

### Revenue

Revenue appears at the top of the income statement. Revenue is recognized and recorded on the income statement when the product has been delivered or the service has been rendered and the seller is reasonably sure that the product will not be returned. Both the risk and the reward of ownership must be transferred from the buyer

to the seller for the transaction to be considered final.

For example, some companies offer lenient return policies to encourage customers to purchase products. Book publishers and other media companies may allow unsold items to be returned for a refund as an incentive to carry their goods. In these cases, when it is reasonable to believe there will be some form of product returns, the companies are required to estimate an allowance for future returns. Net revenue reported on the income statement is typically net of the allowance for doubtful accounts.

Accounts receivable (listed on the balance sheet) increases when a sale is made and cash is not exchanged. Accounts receivable represents the credit that is extended to a customer to purchase goods. This balance sheet item should move in tandem with sales. Accounts receivable increasing at a faster rate than sales is a cause for concern and should be investigated further. This type of trend can mean that the customers are struggling to pay their bills or the products are not selling.

Certain revenue may not be recognized for the current reporting period, even if the payment is received in cash. Software providers, which often offer multi-year licenses, are a good example. A software company that receives cash payment for a multi-year subscription should not recognize the entire sum for the current reporting period since the delivery of the service covers a longer period and expenses related to the sale (e.g., product support) can be incurred in future periods. The manufacturer should recognize the revenue associated with the expenses that arise with the current portion of the payment, however. The rest of the revenue is reported in a liability account, titled unearned revenue, on the balance sheet. Recognizing revenue in this manner is in keeping with the principles of accrual accounting, which spreads out the revenues over the life of the license. This smooths out the reporting of income, rather than lumping a long-term contract into a single quarter.

It may be difficult for an outsider

to recognize fraud in revenue recognition, but it is important to keep a keen eye on potential red flags, such as accounts receivable growing faster than sales. Furthermore, a change in how the company recognizes revenues should be investigated thoroughly.

### Gross Income

Gross income, which is calculated by taking revenue and subtracting the cost of goods sold, represents the amount of profit a company earns by selling its products or services.

Cost of goods sold is the cost a firm incurs by manufacturing or producing an item, such as material and direct labor costs. The cost can be significant for traditional manufacturers, wholesalers and retailers, so the method used to determine this expense can have a big impact on the bottom line. To calculate cost of goods sold, most companies use either the first-in, first-out (FIFO) or last-in, first-out (LIFO) method, although the average-cost method may also be used. FIFO assumes that the oldest inventory items are sold first, whereas LIFO assumes the newest inventory items are sold first. In an inflationary environment, FIFO would yield a higher gross income, as the lower-cost items would be included in cost of goods sold. Management does have certain discretion when choosing between accounting assumptions for cost of goods sold, but any significant change should be disclosed.

Gross income and cost of goods sold are used by analysts to determine trends in production and labor costs. Gross margin, which is gross profit divided by revenue, varies by industry, but can give important insights into cost trends (it doesn't show up on the income statement, but is reported by many data sources along with other profitability ratios). Be cognizant of increasing costs, because they will have to be either absorbed by the company, hurting profits, or passed on to the consumer, potentially hurting sales.

### Operating Income

Operating income is the income

**Table 1. Income Statement Structure**

Income statement for year ending (in millions, except for per share data)	2011	2010
<b>Net Revenue</b>	\$ 1,000.00	\$ 800.00
<b>Cost of Goods Sold</b>	\$ 500.00	\$ 400.00
<b>Gross Income</b>	\$ 500.00	\$ 400.00
Operating Expenses		
Selling Expenses	\$ 120.00	\$ 100.00
General and Administrative Expenses	\$ 40.00	\$ 30.00
Research and Development Expenses	\$ 70.00	\$ 50.00
Depreciation	\$ 50.00	\$ 50.00
Amortization	\$ 40.00	\$ 30.00
<b>Total Operating Expenses</b>	\$ 320.00	\$ 260.00
Operating Income	\$ 180.00	\$ 140.00
<b>Other Income (Expense)</b>		
Interest Income (Expense)	\$ (100.00)	\$ (90.00)
Non-Operating Income (Expense)	\$ 30.00	\$ 30.00
Other Income (Expense)	\$ 25.00	\$ 25.00
Income Before Taxes	\$ 135.00	\$ 105.00
Income Taxes	\$ 47.25	\$ 36.75
Income After Taxes	\$ 87.75	\$ 68.25
<b>Extraordinary Gain (Loss)</b>	\$ 15.00	\$ —
<b>Gain (Loss) on Discontinued Operations</b>	\$ (25.00)	\$ 10.00
<b>Non-Recurring Events</b>	\$ 10.00	\$ (10.00)
<b>Cumulative Effect of Change in Accounting</b>	\$ (5.00)	\$ (5.00)
<b>Net Income</b>	\$ 82.75	\$ 63.25
<b>Preferred Dividends</b>	\$ (10.00)	\$ (5.00)
Net Earnings Available for Common Shareholders	\$ 72.75	\$ 58.25
<b>Shares Outstanding, End of Year</b>	9,500,000	10,000,000
<b>Earnings per Share—Basic</b>	\$ 7.66	\$ 5.83
<b>Earnings per Share—Diluted</b>	\$ 6.88	\$ 5.58
<b>Dividends per Share</b>	\$ 1.50	\$ 1.40
<b>Consolidated Statement of Retained Earnings</b>		
Retained Earnings, Beginning of Year	\$ 54.25	\$ 10.00
Net Earnings Available for Common Shareholders	\$ 72.75	\$ 58.25
Cash Dividend Declared	\$ 14.25	\$ 14.00
<b>Retained Earnings, End of Year</b>	\$ 112.75	\$ 54.25

generated by a firm's regular business operations, before interest, taxes, non-operating costs and extraordinary charges are accounted for. It is arrived at by subtracting total operating expenses from gross income. Total operating expenses are the sum of selling expenses, general and administrative expenses, research and development expenses, depreciation, and amortization.

Operating expenses are incurred as a result of normal business operations. Generally, the first major expense listed is selling, general and administrative expenses (SG&A), which is overhead costs. These expenses are usually broken down into selling costs (typically marketing and advertising) and general and administrative costs (employee salaries, rent, insurance, electricity, etc.). The difference between cost of goods sold and operating expenses is that the former can be traced back to specific products, while operating costs are proportionally allocated to all products. Companies have a certain amount of leeway when determining which costs are direct costs of sales and which are not.

Research and development expenses can be a large cost for companies in certain industries. Companies are only required to report research and development expenses as a separate line item if the amount spent is material. In AAI's fundamental stock screening and research database *Stock Investor Pro*, about 2,600 companies out of the 10,000 in the database break out research and development as a separate line item. The vast majority of these companies operate within the technology and health care sectors. Research and development expenses, as a percentage of sales, are relative to the industry in which a company operates. Companies with higher research and development expenses in relation to sales should see higher growth or have higher expectations for future growth. A firm with a history of unsuccessful product releases may not be properly spending its research and development dollars.

Depreciation is used to allocate the cost of capital investments that have long life spans, such as buildings and

machinery. The goal of depreciation is to spread recognition of the expense over the lengthy life span of a building or machine, as opposed to recording a large, one-time hit to income when the cash is actually used to pay for the item. Depreciation also factors in the likelihood that the property may have a final salvage value. Depreciation is a non-cash expense that reduces the value of a capital ("fixed") asset listed on the balance sheet. The two most common depreciation methods are straight-line and accelerated. Straight-line depreciation deducts the value of the asset evenly throughout its life span. Accelerated depreciation will reduce the value of an asset faster during the first few years of an asset's life, causing higher depreciation expense, lower operating income and lower taxes early in the asset's life.

Amortization represents the long-term decline in value of intangible assets such as patents, copyright protections and other intellectual property. These intangible assets lose value as the rights near expiration. Like depreciation, amortization is a non-cash transaction.

Operating income is a crucial line item that reflects organizational productivity before considering how the firm was financed or the contribution of non-business activities. Investors should always closely monitor operating income, as it provides insight into a firm's "core business operations."

Operating margins, which are calculated by dividing operating income by revenues, should also be monitored (another profitability ratio reported by data sources). It is important to examine a company's operating margins against those of other firms in the same industry, as certain industries have higher or lower operating margins. Significant shifts and abnormally high or low operating margins should be scrutinized.

EBITDA (pronounced EEE-BIT-DAH) stands for earnings before interest, taxes, depreciation and amortization and is often used as a proxy for cash flow, or how much cash a company generates. In addition, companies may report EBITDA if they think it provides a better representation of performance.

## Income Before Taxes

Many companies use debt financing. Interest expense is paid on outstanding long-term loans and is a form of non-operating expense. The expense is classified as a financing expense, not an operational expense, and is therefore listed under non-operating expenses for firms in most industries. Alternatively, companies with an abundance of cash may be earning interest. Interest income is also listed in the non-operating section, with the notable exception of financial companies or companies operating financial divisions.

Non-operating income or expenses can be listed together or separated out by line item. Other common non-operating expenses or income can include the gain or loss on sale of equipment or profits and losses from hedging activities.

Subtracting operating and non-operating expenses from gross income yields income before taxes.

## Net Income

Net income is also known as a company's "bottom line." This is the income available to all shareholders after all expenses have been taken into account. The final items taken into account to arrive at net income are income taxes and adjustments to income.

Income taxes are paid by companies at the federal and state levels. Income taxes can vary if there is a special situation allowing for a company to pay a lower tax expense or forcing it to pay a higher tax expense.

Companies often maintain separate accounting books for investors and tax authorities. While the goal for reporting to investors is to report high earnings while staying within the GAAP, the goal of tax reporting is to minimize earnings in order to minimize tax liabilities. For example, I stated earlier that there are two separate depreciation methods—straight-line and accelerated depreciation. Accelerated depreciation lowers taxable income during the first years of an asset's life, thereby lowering tax liability. A firm can opt to report to investors using straight-line depreciation, resulting in higher income early in

the life of the asset, while using accelerated depreciation to report earnings to the IRS, resulting in a lower initial tax liability. The discrepancy will reverse itself during the later years of the asset's life, when accelerated depreciation results in higher taxable income.

There are a few notable items that are known as adjustments to income. These expenses, or income, are not consistently found from period to period, and cannot fall under either operating expenses or non-operating expenses. In our example, these expenses include an extraordinary gain or loss, a gain or loss on discontinued operations, non-recurring items, and the cumulative effect of change in accounting.

Extraordinary and non-recurring items are often combined in one line item. These events are unusual and infrequent in nature. The event must be related to the firm's normal course of business. Gain or loss from discontinued operations is reported when a firm sells a portion of its business or closes down a line of business. Companies may also adopt new accounting policies or fix past accounting mistakes. This can generate a one-time gain or loss that requires an adjustment to income.

Income from subsidiaries and equity in other firms is also listed in this section.

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## Earnings per Share

Companies also include earnings per share (EPS) in the income statement, which is computed by simply taking the company's preferred dividends out of net income and dividing the result by the average number of shares outstanding. This is the earnings available per common share. If a company has convertible bonds or shares, stock options and warrants, diluted earnings per share must also be calculated. Diluted earnings per share represents the earnings available per common share, assuming all convertibles, warrants and options are exercised.

Certain companies will also include

a short statement of retained earnings section. The statement of retained earnings details the amount of net earnings available to common shareholders that is paid out as dividends, and the amount that is retained at the firm for future expenditures and expansion.

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## Analysis

Revenue growth is a fundamental factor associated with strong companies. It is important to keep in mind that many companies are impacted by seasonal trends and that comparing revenues (and profits) on a sequential quarterly growth basis (e.g., comparing third-quarter sales to second-quarter sales) can be misleading. Retailers sell more during the holiday season than at any other time of the year, so it's important to compare one quarter's revenue with revenues from the same period one year ago. In addition, pay attention to the magnitude of growth and the actual dollar amount of sales. High growth rates are hard to maintain, especially given that 10% of \$1 billion is a far smaller number than 10% of \$10 billion. Furthermore, as a company gets larger, growth may slow as product markets become saturated. Be sure to also note whether growth is being driven organically (growth in existing and new products sales) or through the acquisition of competitors and other businesses.

A firm's ability to price its products is vital. Companies that are able to maintain high margins will attract increased competition, which can drive prices downward. Alternatively, companies with low margins typically offer "commodity products," where products from different firms are not perceived as having significant advantages over one another. These companies are especially sensitive to changes in the prices of raw materials and labor, as it may be difficult for them to pass off the price increases to their consumers.

Be sure to also keep a keen eye on operating expenses. Consider why expenses have increased and whether

the increases in expenses are permanent or temporary. If permanent, consider whether a company will be able to pass these expenses on to its customers and remain profitable. In the case of mergers or acquisitions, SG&A expenses in relation to revenue should fall if the change brings synergies.

Arguably the figure about which investors are most concerned is earnings per share. Typically, reported earnings per share is compared with analyst consensus earnings estimates. Even slight misses can send share price spiraling downward. Be sure to note how many analysts are following a stock and how many estimates are making up the consensus estimate. A consensus earnings estimate based on only one or two analyst estimates may not mean as much as one based on 20 or more estimates.

It is also important to note that earnings per share growth can be misleading if there have been a number of share buybacks. Earnings per share may look higher simply because there are fewer shares outstanding. Conversely, if a company issues more shares, earnings per share will be reduced. Look at the share count numbers used to calculate earnings per share: Net income should change in the same direction and confirm what the change in earnings per share indicates about the company's growth rate.

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## Conclusion

The income statement provides insight on how a firm translates its revenue into net income. It is important to assess the numerous expenses that a firm incurs throughout the financial period. Be sure to notice trends in revenues and expenses. Several years of declining revenues or profits can be a sign that a company is struggling.

The next article in this series will appear in the May 2011 *AAIL Journal*. It will thoroughly examine the balance sheet, which provides its own insights into a firm's financial well-being. ▲