

How to Read a Balance Sheet

Introduction

"Cash Is King?" Sure, you have heard the cliché. You will be talking to another investor about the latest addition to your portfolio and the conversation will turn to how each of you picks stocks. The other investor will smile at you and wink, cryptically saying, "Cash is king." Although somewhat perplexed, you don't dare ask for clarification for fear of looking like a fool. But what the heck does that really mean?

Publicly traded companies are designed to make money. The conventional way of scoring this pursuit is by looking at the company's ability to grow various flavors of earnings -- operating earnings, pretax earnings, net income and earnings per share are all common measures. However, this is not the only way to determine if there is real value in a company's stock. A company's real earnings are the earnings that make it from the Consolidated Statement of Earnings to the Balance Sheet as a liquid asset.

Shareholder value ultimately derives from liquid assets, the assets that can easily be converted into cash. A company's value is determined by how much in the way of liquid assets it can amass. There are two ways to think about this. The first is to look at terminal value, which assumes for the sake of calculating potential return that at some future point a company will close down its operations and turn everything into cash, giving the money to shareholders. The second is to look at where tangible shareholder value comes from -- returns on invested capital generated by the company's operations. If a company has excess liquid assets that it does not need, it can deploy those assets in two ways to benefit shareholders -- dividends and stock buybacks.

Knowing what is on the balance sheet is crucial to understanding whether or not the company you are investing in is capable of generating real value for shareholders. Most investors who look at annual reports, 10-Ks and 10-Qs spend far too much time worrying about earnings and far too little time worrying about the balance sheet and its cousin, the Statement of Cash Flows. It is the balance sheet that can tell you if a company has enough money to continue to fund its own growth or whether it is going to have to take on debt, issue debt, or issue more stock in order to keep on keeping on. Does a company have too much inventory? Is a company collecting money from its customers in a reasonable amount of time? It is the balance sheet -- the listing of all of the assets and liabilities of a company -- that can tell you all of this.

Where do you find all this information about the balance sheet? Would you believe that you can get it for free? The documents that the Securities and Exchange Commission (SEC) makes available to you online at the Edgar website give you all sorts of balance sheet information in the 10-Ks and 10-Qs. The 10-K is a toned-down version of the annual report with more text and fewer pretty pictures that comes out once a year, containing the company's annual balance sheet. The 10-Q is a quarterly filing that a company makes with the SEC three times a year (with the fourth filing being the 10-K in the fourth quarter) that also tracks the balance sheet through the course of the year. The advantage of the annual balance sheet over the quarterlies is that the annual balance sheet has been double-checked by accountants before it was filed with the SEC.

Armed with this information, you are ready to begin your journey through the balance sheet.

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Current Assets

The first major component of the balance sheet is Current Assets, which are assets that a company has at its disposal that can be easily converted into cash within one operating cycle. An operating cycle is the time that it takes to sell a product and collect cash from the sale. It can last anywhere from 60 to 180 days. Current assets are important because it is from current assets that a company funds its ongoing, day-to-day operations. If there is a shortfall in current assets, then the company is going to have to dig around to find some other form of short-term funding, which normally results in interest payments or dilution of shareholder value through the issuance of more shares of stock. There are five main kinds of current assets -- Cash & Equivalents, Short- and Long-Term Investments, Accounts Receivable, Inventories and Prepaid Expenses.

Cash & Equivalents are assets that are money in the bank, literally cold, hard cash or something equivalent, like bearer bonds, money market funds, or vintage comic books. All right, it does not include vintage comic books. Cash and equivalents are completely liquid assets, and thus should get special respect from shareholders. This is the money that a company could immediately mail to you in the form of a fat dividend if it had nothing better to do with it. This is the money that the company could use to buy back stock, and thus enhance the value of the shares that you own.

Short-Term Investments are a step above cash and equivalents. These normally come into play when a company has so much cash on hand that it can afford to tie some of it up in bonds with durations of less than one year. This money cannot be immediately liquefied without some effort, but it does earn a higher return than cash by itself. It is cash and investments that give shares immediate value and could be distributed to shareholders with minimal effort.

Accounts Receivable, normally abbreviated as A/R, is the money that is currently owed to a company by its customers. The reason why the customers owe money is that the product has been delivered but has not been paid for yet. Companies routinely buy goods and services from other companies using credit. Although typically A/R is almost always turned into cash within a short amount of time, there are instances where a company will be forced to take a write-off for bad accounts receivable if it has given credit to someone who cannot or will not pay. This is why you will see something called allowance for bad debt in parentheses beside the accounts receivable number.

The allowance for bad debt is the money set aside to cover the potential for bad customers, based on the kind of receivables problems the company may or may not have had in the past. However, even given this allowance, sometimes a company will be forced to take a write-down for accounts receivable or convert a portion of it into a loan if a big customer gets in real trouble. Looking at the growth in accounts receivable relative to the growth in revenues is important -- if receivables are up more than revenues, you know that a lot of the sales for that particular quarter have not been paid for yet. We will look at accounts receivable turnover and days sales outstanding later in this series as another way to measure accounts receivable.

Inventories are the components and finished products that a company has currently stockpiled to sell to customers. Not all companies have inventories, particularly if they are involved in advertising, consulting, services or information industries. For those that do, however, inventories are extremely important.

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Inventories should be viewed somewhat skeptically by investors as an asset. First, because of various accounting systems like FIFO (first in, first out) and LIFO (last in, first out) as well as real liquidation

compared to accounting value, the value of inventories is often overstated on the balance sheet. Second, inventories tie up capital. Money that it is sitting in inventories cannot be used to sell it. Companies that have inventories growing faster than revenues or that are unable to move their inventories fast enough are sometimes disasters waiting to happen. We will look at inventory turnover later as another way to measure inventory.

Finally, Prepaid Expenses are expenditures that the company has already paid to its suppliers. This can be a lump sum given to an advertising agency or a credit for some bad merchandise issued by a supplier.

Although this is not liquid in the sense that the company does not have it in the bank, having bills already paid is a definite plus. It means that these bills will not have to be paid in the future, and more of the revenues for that particular quarter will flow to the bottom line and become liquid assets.

Current Liabilities

Current Liabilities are what a company currently owes to its suppliers and creditors. These are short-term debts that normally require that the company convert some of its current assets into cash in order to pay them off. These are all bills that are due in less than a year. As well as simply being a bill that needs to be paid, liabilities are also a source of assets. Any money that a company pulls out of its line of credit or gains the use of because it pushes out its accounts payable is an asset that can be used to grow the business. There are five main categories of current liabilities: Accounts Payable, Accrued Expenses, Income Tax Payable, Short-Term Notes Payable and Portion of Long-Term Debt Payable.

Accounts Payable is the money that the company currently owes to its suppliers, its partners and its employees. Basically, these are the basic costs of doing business that a company, for whatever reason, has not paid off yet. One company's accounts payable is another company's accounts receivable, which is why both terms are similarly structured. A company has the power to push out some of its accounts payable, which often produces a short-term increase in earnings and current assets.

Accrued Expenses are bills that the company has racked up that it has not yet paid. These are normally marketing and distribution expenses that are billed on a set schedule and have not yet come due. A specific type of accrued expense is **Income Tax Payable**. This is the income tax a company accrues over the year that it does not have to pay yet according to various federal, state and local tax schedules. Although subject to withholding, there are some taxes that simply are not accrued by the government over the course of the quarter or the year and instead are paid in lump sums whenever the bill is due.

Short-Term Notes Payable is the amount that a company has drawn off from its line of credit from a bank or other financial institution that needs to be repaid within the next 12 months. The company also might have a portion of its **Long-Term Debt** come due with the year, which is why this gets counted as a current liability even though it is called long-term debt -- one of those little accounting quirks.

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Debt & Equity

The remainder of the balance sheet is taken up by a hodge-podge of items that are not current, meaning that they are either assets that cannot be easily turned into cash or liabilities that will not come due for more than a year. Specifically, there are five main categories -- Total Assets, Long-Term Notes Payable, Stockholder's/Shareholder's Equity, Capital Stock and Retained Earnings.

Total Assets are assets that are not liquid, but that are kept on a company's books for accounting purposes. The main component is plants, property and equipment and encompasses any land, buildings, vehicles and equipment that a company has bought in order to operate its business. Much of this is actually subject to an accounting convention called depreciation for tax purposes, meaning that the stated value of the total assets and the actual value or price paid might be very different.

Long-Term Notes Payable or **Long-Term Liabilities** are loans that are not due for more than a year. These are normally loans from banks or other financial institutions that are secured by various assets on the balance sheet, such as inventories. Most companies will tell you in a footnote to this item when this debt is due and what interest rate the company is paying.

The last main component, **Stockholder's or Shareholder's Equity**, is composed of **Capital Stock** and **Retained Earnings**. Frankly, this is more than a little bit confusing and does not always add all that much value to the analysis. Capital stock is the par value of the stock issued that is recorded purely for accounting purposes and has no real relevance to the actual value of the company's stock. **Capital in Excess of Stock** is another weird accounting convention that is pretty difficult to explain. Essentially, it is any additional cash that a company gets from issuing stock in excess of par value under certain financial conventions.

Retained earnings is another accounting convention that basically takes the money that a company has earned, less any earnings that are paid out to shareholders in the form of dividends and stock buybacks, and records this on the company's books. Retained earnings simply measures the amount of capital a company has generated and is best used to determine what sorts of returns on capital a company has produced. If you add together capital stock and retained earnings, you get shareholder's equity -- the amount of equity that shareholders currently have in the company.

Current & Quick Ratio

So, you have managed to read through my abbreviated definitions of various items on the balance sheet -- congratulations. Now we get to have some fun with numbers and start playing around with these various pieces of information. We do this to derive some rather compelling information about how well the company manages its assets and whether or not the company represents a bargain based on the assets it has at its disposal.

The first tool you can use is called the **Current Ratio**. A measure of how much liquidity a company has, this is simply the current assets divided by the current liabilities. For instance, if JOE'S BAR AND GRILL has \$10 million in current assets and \$5 million in current liabilities, you get:

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\$10 million

Current Ratio = ----- = 2.0

\$5 million

As a general rule, a current ratio of 1.5 or greater is normally sufficient to meet near-term operating needs. A current ratio that is too high can suggest that a company is hoarding assets instead of using them to grow the business -- not the worst thing in the world, but potentially something that could impact long-term returns. You should always check a company's current ratio (as well as any other ratio) against its main competitors in a given industry. Certain industries have their own norms as far as which current ratios make sense and which do not. For instance, in the auto industry a high current ratio makes a lot of sense if a company does not want to go bankrupt during the next recession.

If you recall the discussion on inventories, I mentioned that sometimes inventories are not necessarily worth what they are on the books for. This is particularly true in retail, where you routinely see close-out sales with 60% to 80% markdowns. It is even worse when a company going out of business is forced to liquidate its inventory, sometimes for pennies on the dollar. Also, if a company has a lot of its liquid assets tied up in inventory, it is very dependent on the sale of that inventory to finance operations. If the company is not growing sales very quickly, this can turn into an albatross that forces the company to issue stock or take on debt.

Because of all of this, it pays to check the **Quick Ratio**. The quick ratio is simply current assets minus inventories divided by current liabilities. By taking inventories out of the equation, you can check and see if a company has sufficient liquid assets to meet short-term operating needs. Say you look at the balance sheet of Joe's Bar and Grill and find out that they have \$2.5 million of their current assets in hamburger buns that are sitting in inventory. You now can figure out the company's quick ratio:

(Current Assets - Inventories)

Quick Ratio = ----- =
Current Liabilities

\$10 mm - \$2.5 mm
= ----- = 1.5
\$5 mm

Looks like Joe's makes the grade again. Most people look for a quick ratio in excess of 1.0 to ensure that there is enough cash on hand to pay the bills and keep on going. The quick ratio can also vary by industry. As with the current ratio, it always pays to compare this ratio to that of peers in the same industry in order to understand what it means in context.

Finally, some investors will use something called the **Cash Ratio**, which is the amount of cash that a company has divided by its current liabilities. This is not a common ratio, however, so I know of no general guideline to use when you want to check it. It is just another method to compare various companies in the same industry with each other in order to figure out which one is better funded.

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Working Capital

The best way to look at current assets and current liabilities is by combining them into something called **Working Capital**. Working capital is simply current assets minus current liabilities and can be positive or negative. Working capital is basically an expression of how much in liquid assets the company currently has to build its business, fund its growth, and produce shareholder value. If a company has ample positive working capital, then it is in good shape, with plenty of cash on hand to pay for everything it might need to buy. If a company has negative working capital, then its current liabilities are actually greater than their current assets, so the company lacks the ability to spend with the same aggressive nature as a working capital positive peer. All other things being equal, a company with positive working capital will always outperform a company with negative working capital.

I cannot emphasize enough how important working capital is. Working capital is the absolute lifeblood of a company. About 99% of the reason that the company probably came public in the first place had to do with getting working capital for whatever reasons -- building the business, funding acquisitions or developing new products. Anything good that comes from a company springs out of working capital. If a company runs out of working capital and still has bills to pay and products to develop, it has big problems.

A valuation that I am coming to like more and more is comparing working capital to the company's current **Market Capitalization**. Market capitalization is the value of all the shares of stock currently outstanding plus any long-term debt or preferred shares that the company has issued. The reason you add long-term debt and preferred shares (which are a special form of debt) to the market capitalization is because if you were to buy the company, not only would you have to pay the current market price but you would also have to incur the responsibility for the debt as well.

If you take a company's working capital and measure it against a company's market capitalization, you can find some pretty cool stuff. You can compare working capital to market capitalization by dividing working capital by that market capitalization. For instance, if we use Joe's Bar and Grill again, we know that it has \$10 million in current assets and \$5 million in current liabilities. If you know that Joe's Bar and Grill has no debt, one million shares outstanding and each share is \$10 a pop, you can figure out the working capital to market capitalization ratio.

$$\begin{array}{l} \text{Working Capital} \quad (\text{Current Assets} - \text{Current Liabilities}) \\ \text{-----} = \text{-----} \\ \text{Market Cap.} \quad (\text{Shares Out} * \text{Share Price}) + \text{Debt} \\ \\ \$10 \text{ mm} - \$5 \text{ mm} \quad \$5 \text{ mm} \\ = \text{-----} = \text{-----} = 0.5 = 50\% \\ (1 \text{ mm} * \$10) + \$0 \text{ mm} \quad \$10 \text{ mm} \end{array}$$

What all of that math tells you is that 50% of the market's valuation of Joe's Bar and Grill is backed up by working capital. Theoretically, if you were to liquidate Joe's tomorrow, you would get 50 cents on the dollar just from working capital alone. This is a tremendous amount of money to have at your disposal and really

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very nice for Joe's. Basically, if you see working capital to market capitalizations of 50% or higher, things are pretty good.

Even though working capital is nifty, just looking at the amount of cash a company has relative to its market capitalization is also pretty enlightening. Simply take the cash and equivalents and divide it by the market capitalization to see what the percentage is. If you are dealing with a company where 10% or more of the capitalization is backed up with cold, hard cash, you have a company that has ample funds to get itself going. Also, you might want to net out the inventories from working capital and check that percentage just to make sure that the number is not all that different, especially for retailers and clothing manufacturers. You do this by simply subtracting inventories from working capital.

CPrice/Book, DSO & Turns

The last three ratios that you can derive from the balance sheet are the Price-to-Book Ratio, Days Sales Outstanding (DSO), and Inventory Turnover. I saved these for last because they are the most complicated.

The one of these that I think is absolutely useless is the venerable **Price-to-Book Ratio**. Conceived in a time when America was made up mainly of industrial companies that had actual hard assets like factories to back up their stock, its utility has waned in the past few decades as more and more companies that are not very capital intensive have grown and become commercial giants. The fact that **Microsoft** (Nasdaq: MSFT) doesn't have very much in the way of book value doesn't mean the company is overvalued -- it just means that the company does not need a lot of land and factories to make a very high-margin product.

Traditional **book value** is simply the shareholder's equity divided by the number of shares of stock outstanding. Since I think that it is more informative to look at the company as a whole, however, I do my price-to-book ratios using the aggregate market capitalization of the company divided by the current shareholder's equity. I also use something called **Enterprise Value**, which is market capitalization minus cash and equivalents plus debt. The reason you subtract cash and equivalents from market capitalization is because if someone were to actually buy the company, they would get all the cash the company currently has, meaning it would effectively be deducted from the cost after the transaction was closed. The enterprise value (EV) to shareholder's equity (SE) looks like this, then:

$$\text{EV/SE} = \frac{(\text{Shares Out} * \text{Price}) + \text{Debt} - \text{Cash}}{\text{Shareholder's equity}}$$

This number will get you a simple multiple, much like the price/earnings ratio or the price/sales ratio. If it is below 1.0, then it means that the company is selling below book value and theoretically below its liquidation value. Some value investors will shun any companies that trade above 2.0 times book value or more.

Days Sales Outstanding is a measure of how many days worth of sales the current accounts receivable (A/R) represents. It is a way of transforming the accounts receivable number into a handy metric that can be compared with other companies in the same industry to determine which player is managing its receivables collection better. A company with a lower amount of days worth of sales outstanding is getting

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its cash back quicker and hopefully putting it immediately to use, getting an edge on the competition. To figure out DSO, you first have to figure out **Accounts Receivables Turnover**. This is:

$$\text{A/R Turnover} = \frac{\text{Sales for period}}{\text{Average A/R for period}}$$

Sometimes you will only be able to get the accounts receivable from the last fiscal year, and therefore will have to use the revenues from the last fiscal year. However, the fresher the information, the better. What this ratio tells you is how many times in a year a company turns its accounts receivable. By "turn," I mean the number of times it completely clears all of the outstanding credit. For this number, higher is better. To turn this number into days sales outstanding, you do the following:

$$\text{DSO} = \frac{\text{Current accounts receivable}}{\text{Sales for period divided by days in period}}$$

This tells you roughly how many days worth of sales are outstanding and not paid for at any given time. As you might have expected, the lower this number is, the better it is for the company. By comparing DSOs for various companies in the same industry, you can get a picture of which companies are managing their credit better and getting money in faster on their sales. This is a crucial edge to have because money that is not tied up in accounts receivable is money that can be used to grow the business.

The same is true of **Inventory Turnover**. The less money you have tied up in inventory in order to fill your distribution channels, the more money you will have to do all the other things a company needs done -- marketing, advertising, research and development, acquisitions, expansions, and so on. You want a company to turn its inventories as often as possible during the year in order to free up that working capital to do other things. To figure out how much a company is turning its inventory, you need to find out the **Cost of Goods Sold** (COGS) for the past 12 months. COGS is the second entry in the Consolidated Statement of Earnings right below the revenue line. Just add up the last four quarters worth of COGS and then find out the current inventory level. If you have problems finding these numbers, a call to the company's investor relations department will usually get you the information you need.

$$\text{Inventory Turnover} = \frac{\text{Costs of Goods Sold Expense}}{\text{Average inventory for period}}$$

If two companies are the same in every way but one is turning over its inventories more often, the one with better inventory management is the one that is going to be able to grow faster. Inventory management actually is a bottleneck for growth if it is not efficient enough, tying up a lot of working capital that could be better used elsewhere. If you can find out a company's DSO and inventory turns relative to its peers, you will have an incredible view into how well the company can fund its own growth going forward, allowing you to make better investments.