

Case Study

The following is an example of financial analysis for a fictional company called the **Warehouse Factory**. You can use this as a guide to analyze your firm's financial condition. This section will discuss the elements to focus on when looking at your balance sheet and income statement in order to assess your firm's cash flow. Remember that when you review financial information it is best to look at *trends*, not just one year. You may want to analyze between 2-3 years of financial data on your firm. Use your tax returns or business financial statements and input the information into the spreadsheet titled [book1.xls](#), included in this package.

Balance Sheet

A balance sheet is a scorecard for a company's source and use of capital. It reflects how money has been allocated for the purchase of assets, the payment of liabilities to creditors, and how the company uses its profits for a 12-month period. There are two ways of analyzing a company's balance sheet: **1)** from the top down, which begins with current assets and liabilities or **2)** from the bottom up, which begins with stockholder equity and liabilities. An analysis from the top down will tell you about the company's liquidity and how quickly it is turning over cash. An analysis from the bottom up will tell you how much net worth the firm has and how much borrowing it has taken on. We will begin our analysis by looking at the balance sheet from the *bottom up*.

The equity section of the balance sheet tells you whether a company is solvent or not. A negative equity position can only be overcome with an additional injection of capital from the owner(s) of a firm. In the case of the Warehouse Factory, the equity section is positive.

Stockholder Equity	2000	2001	2002
Warehouse Factory	\$45M	\$71M	\$150M

(M = thousands, \$45M means \$45,000)

In a best-case scenario, equity improves because the firm has decided to keep profits in the company and limit distributions. Increases in equity will also reduce your reliance on outside financing.

Remember that all accounts on the balance sheet are interrelated. One account impacts another. Once you know the equity of a company, you can use this number to assess whether the firm is borrowing too much. The ratio that answers this question is called, the *debt-to-equity ratio*, which measures leverage. You want this ratio to be as small as possible or declining. In the case of the Warehouse Factory, the leverage ratio is calculated by dividing all of the firm's liabilities by its equity:

Leverage	2000	2001	2002
Total Liabilities/Total Equity	512/45	842/71	878/150
Debt-to-Equity Ratio	11:1	12:1	6:1

Over a 3-year period, the leverage for the Warehouse Factory has improved. The debt-to-equity ratio has gone down. In this case, the firm kept more profits in the company and improved its equity position. When a company has a high debt-to-equity ratio, it needs to identify the source of its borrowed money. It can be in inventory, machinery and equipment, and/or real estate.

Questions that may arise from the analysis of the debt-to-equity ratio include:

- What are the firm's major assets?
- Who are the firm's major creditors?
- What are the terms and conditions of the firm's loans?
- Who are the firm's major trade creditors?
- What are the firm's plans for capital expenditures?

Now that you have reviewed the bottom half of the balance sheet, you may now consider the top portion. The critical ratios relevant to analyzing the top portion of the balance sheet are the quick and current ratios. They tell you how much money the firm has to pay off short-term creditors. The *quick ratio* tells you how much cash you have to cover current liabilities. The *current ratio* tells you how much cash and accounts receivable you have to cover your current liabilities. In the case of the Warehouse Factory, the quick and current ratios are as follows:

Warehouse Factory	2000	2001	2003
Quick ratio	.61	.63	.86
Current ratio	1.14	1.15	1.29

The interpretation of this information is that for every \$1.00 that the Warehouse Factory owed to creditors, it had 61¢ in cash for every \$1.00 of short-term debt. In subsequent years, it had more money to cover its creditors with cash. A business should strive to have minimum quick and current ratios of at least \$1.00 for every dollar in current liabilities. Businesses often have small quick and current ratios due to the lack of cash, which can result from a combination of the following factors:

- The firm used money to buy equipment
- The firm had to repay creditors
- The firm has money tied up in inventory
- The firm has slow receivables collection

A business owner should address these factors to identify where the money is tied up in the firm. In addition to these ratios, there are other methods of measuring how quickly a firm converts its current assets (accounts receivable and inventory). These are called *activity ratios*. These ratios tell a business owner how many days it takes to convert accounts receivable and inventory into cash.

The spreadsheet included in this manual calculates this ratio for you. In the case of the Warehouse Factory, these activity ratios are illustrated as follows:

Warehouse Factory	2000	2001	2002
Days Receivable	36	45	65
Days Inventory	41	45	45
Days Payable	30	46	50

The faster you collect receivables and turn inventory the more cash you collect and retain. You can choose to pay your suppliers to take advantage of supplier discounts or conserve your cash by paying your suppliers on the due date of the invoice.

Balance Sheet Summary

The Warehouse Factory is highly leveraged. This is evident from its equity section, which is impacted by low profits. However, the firm is improving in this area. Management can offset this problem by putting more funds into the firm (by reducing officer salaries and shareholder distributions). The Warehouse Factory has limited liquidity; it is low on cash because of low profits and high liabilities. Its cash position is affected by the fact that its collection of accounts receivable have increased from 36 days to 65 days over the past two years. The owners should look at the firm's inventory to determine what items are not moving fast or are obsolete and need to be quickly sold or written off.

The next section deals with the income statement. It discusses issues related to assessing your firm's revenue and income. Once again, the Warehouse Factory income statements are used to illustrate key points.

Income Statement Analysis

The income statement reflects activity for a specified time period. It is often assumed that an increase in sales translates into an increase in profits and more cash in the bank. If a firm does not monitor its cash flow and its cost structures, this assumption can be wrong.

Revenue

When looking at your income statement you want to pay close attention to gross margins and administrative costs/overhead. When reviewing sales growth the only question that matters is, “*Did the percentage increase in sales outstrip the percentage increase in costs?*”

If the answer to the question is “yes,” you will be profitable more often than not. If the answer to this questions is “no,” you will not be profitable. It is a lot easier to answer this question when this information is laid out in front of you in the form of a financial spreadsheet.

In the Warehouse Factory scenario, the answer to this question is “yes.” In 2001, sales grew by 18 percent, which outstripped the 5 percent increase in costs of goods sold and was further helped by the 2 percent decrease in administrative costs. This is also true for 2002 because sales increased by 10 percent, the gross margin held steady, and administrative costs decreased. These factors produced solid profits for the firm in both 2001 and 2002.

If the answer to the question above is “no,” you want to concentrate on gross margins and administrative/overhead costs. These two factors along with sales growth affect profitability. Your *gross profit* (or *gross margin*) is the money left over after you pay for materials, labor, and other costs related to producing your product. Your overhead costs are paid by your gross profit. Once you pay your overhead you have profit before taxes. In the case of the Warehouse Factory, the sales growth, gross margin, and overhead costs can be illustrated as follows

Warehouse Factory	2000	2001	2002
Sales Growth		18%	10%
Gross Profit	24%	29%	29%
Overhead	21%	19%	18%
Net Profit	3%	10%	11%

The balance sheet shows how the business uses capital in its operation. The income statement shows how sales flow into the business and how they are absorbed by the day-to-day operational costs. The spreadsheet, which is a part of this package, allows you to begin the process of analyzing your firm’s financial condition. It can be customized based on your industry and cost structure.

Please contact Financial Strategists at www.financialstrategists.biz with any questions comments related to these materials.