

BUSINESS PLAN: SNAP & BOOST WORKBOOK

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People who aren't financial executives or accountants tend to consider financial management more confusing and complex than it really is. Many people in business are confused and intimidated by financial matters simply because they have never had the principles and practices explained to them in clear, uncomplicated terms.

Personal success in business usually requires a fundamental understanding of financial management theories and techniques. Have you ever

known a successful businessperson who couldn't read and evaluate a financial statement? There may be some, but they're few and far between.

This series will enable you to read, interpret, and understand financial statements and to apply their underlying concepts in your own work.

You'll be pleased to find that learning the theories and techniques of financial management does not have to be a laborious process. It can be simple, straightforward—and even fun.

THE BALANCE SHEET

Think of the balance sheet as an X-ray of your organization. A human X-ray shows the presence of disease or confirms a condition of physical well-being; the balance sheet provides a picture of the financial health of an organization.

Just as a physician must understand how the parts of a body function, you as a businessperson must understand how the parts of a balance sheet work. And that's really not such a complex task, because unlike the human body, which consists of hundreds of individual parts, the balance sheet has only three elements—*assets*, *liabilities*, and *owners' equity*.

PART I: ASSETS

You probably already have a pretty good idea of what an asset is. If you have cash in the bank, if you own a car or jewelry, or if you have money invested in the stock market or equity in a house or condominium, you have "personal" assets—things that have monetary value.

Similarly, business assets consist of items of monetary value that are owned by a company. Business assets can be tangible or intangible.

Tangible Assets

Here are a few examples of tangible business assets—assets that you can see, touch, or easily evaluate:

- **Cash in bank:** This is cash that has been deposited in checking or savings accounts, or deposits in money-market accounts.
- **Accounts receivable:** This is money that is owed but has not yet been paid to the company for its products and services. Even though the cash is not yet in hand, the amount that is owed has value and is thus considered an asset.
- **Inventory:** Any money the company has spent for raw materials that will be used in the development or manufacture of products is considered an inventory item on the balance sheet. Similarly, "finished goods" (completed products that have not yet been sold), and "work in process" (partially completed products not yet ready to be sold), also have value and are carried as inventory assets on the balance sheet.
- **Land and building:** The price paid for the land and the building the company owns and occupies

is another tangible asset. So are any enhancements that have been made to the property, including improvements to the heating, air-conditioning, plumbing, or electrical systems, landscaping, and so forth.

- **Machinery and equipment:** The purchase price that was paid for any manufacturing or office equipment that is owned by the company is considered an asset. This is a tangible asset because it is the equipment, not the purchase price, that is considered to have the value. This balance sheet line item may include both manufacturing and office equipment, or there may be a separate line item for "Furniture and Fixtures".

Intangible Assets

Tangible assets, because of their "presence", are often considered to be more impressive or important than their "intangible" counterparts. They're not. While intangible assets are sometimes impossible to see or touch, their value is without question.

For example, any patents that a company owns, or has applied for, have value, and would therefore be considered an intangible asset. The valuation of patents on a balance sheet usually includes the cost of labor and materials that were used in developing the product or idea, as well as the legal costs of filing and obtaining the patent.

Can you think of any intangible assets that your company might own? How about copyrights? If your company acquired or applied for any, they could be included on the balance sheet as an intangible asset. The same would hold true for the costs of purchasing, developing, or customizing software programs that your company uses. You can't see or feel intangible assets, and you may not be able to easily evaluate them, but they are assets nonetheless and, as such, should be included in the balance sheet and valued at their cost.

How Assets Behave

Since assets are cash, property, materials, or intangible items of value that your company owns, it is obviously to your advantage to increase them in number and in monetary worth. What's sometimes confusing is this: When you spend cash (an asset) to purchase something of value that your company needs, are you increasing or decreasing your assets?

The answer is that when you spend cash to pur-

chase a piece of equipment, or to expand your building, or to buy raw materials to use in the products you manufacture and sell, you're actually "trading" assets. Spending the cash decreases your cash balance, but another asset called *machinery and equipment*, or *land and building*, or *raw materials inventory* is increased. You're simply trading one asset for another with no resulting decrease in your total asset value, but with a potential for long-term improvement.

PART II: LIABILITIES

The second part of the balance sheet is the liabilities section. Simply stated, liabilities are the opposite of assets. Liabilities are debts. Just as you may be indebted for a car or mortgage payments, revolving charge accounts, or a home-improvement loan, companies also owe money to other companies, banks, federal and local governments and, possibly, their own employees. The following are examples of the most frequently encountered liabilities that appear on the balance sheet.

- **Accounts payable:** When the company purchases something and asks to be billed for it, it creates an account payable until such time as payment is actually made. The company can be liable (thus, "liability") for money that is owed for raw materials used in the manufacture of products, repair parts for equipment, supplies that are needed for day-to-day operations, or any of hundreds of other commodities or services that the company uses.

- **Mortgage payable:** This liability represents the total amount of money that remains to be paid for the building and land the company occupies. It is exactly like the mortgage liability you may personally carry on your own home.

- **Wages or commissions payable:** Very few companies pay their employees in advance of work performed. Rather, employees are obliged to perform a certain amount of work, and the company then pays for that work weekly, biweekly, monthly, or perhaps on a commission basis. The amount of money a company owes to its employees for work performed but not yet paid for appears as a liability on the balance sheet.

- **Notes payable:** It is not unusual for a company to borrow money from a bank or other lending institution for such long-term uses as the financing of a major piece of equipment, or even for

short-term needs like temporary lines of credit—loans that are needed to cover cash shortages until money from accounts receivables, short-term investments, or other asset sources becomes available. The balance sheet identifies the amount of such liabilities as *notes payable*.

- **Taxes payable:** Companies, like individuals, pay taxes. A company's tax liability may include income taxes that are owed to federal and state governments, sales and use taxes payable to local and state agencies, and payroll taxes such as Social Security.

How Liabilities Behave

You should understand now the difference between assets and liabilities. Assets have cash value. It is the objective of every successful, well-managed company to see its assets multiply and increase in value.

Liabilities represent debt. In order to *decrease* a liability, we need to expend an asset. Paying off a debt that has been incurred in accounts payable, for example, requires us to spend cash that *reduces* our assets. Each time we *decrease* a liability (that's good), we also *decrease* an asset (that's

bad). How will our company ever get anywhere if both assets *and* liabilities are decreasing? How will we sell more, produce more, and hire more people if all we're doing is trading assets and liabilities—either spending cash to pay off a debt, or incurring a debt to create an asset?

The answer is the key word: *profit*. Profit is what makes the business world go round. It's an integral part of the third and final part of the balance sheet, *owners' equity*.

PART III: OWNERS' EQUITY

The third part of the balance sheet is called the *owners' equity* or *stockholders' equity* section. It means exactly what it says. All owners, whether they're individual principals, partners, or stockholders, have a stake in the value or "worth" of the business. This ownership is made up of (1) the original amount that the principal owners or stockholders invested to start or purchase the business and any subsequent additions that have been made (called *capital* or *capital stock*); and (2) any profits that the company has accumulated and retained in the business since it first began operating (described on the balance sheet as *retained earnings*).

XYZ Corporation Balance Sheet As of June 30, 19X9

<u>Assets</u>		<u>Liabilities & Stockholders' Equity</u>	
<u>Assets</u>		<u>Liabilities</u>	
Cash in Bank	\$ 40,000	Accounts Payable	\$100,000
Accounts Receivable	125,000	Mortgage Payable	250,000
Inventory	20,000	Wages Payable	30,000
Land and Building	350,000	Notes Payable	85,000
Machinery and Equipment	200,000	Taxes Payable	11,000
Patents	50,000		
		Total Liabilities	\$476,000
		<u>Stockholders' Equity</u>	
		Capital Stock	\$ 50,000
		Retained Earnings	259,000
		Total Stockholders' Equity	\$309,000
Total Assets	<u>\$785,000</u>	Total Liabilities and Stockholders' Equity	<u>\$785,000</u>

Perhaps the easiest way to understand owners' equity is to think of it as what would remain if the company decided to pay off all its debts. Because that's exactly what owners' equity is—the amount that remains after liabilities are *subtracted* from assets. This resulting “excess” is also known as the company's *book value*.

BALANCE SHEET FORMATS

The balance sheet on page 3, while simplified, is representative of every balance sheet you will ever see. There may be some subtle variations, and, of course, the numbers will be different. But if you can read and understand *this* balance sheet, you can read and understand *any* balance sheet.

The major variation that you will encounter in balance sheets concerns the amount of financial detail that is included. Depending on the size of a company, or depending on how the document is to be used, the balance sheet may be brief and simple, or it may be very detailed. All balance sheets include information concerning a company's assets, liabilities, and owners' equity. It is not uncommon, however, to see subdivisions within these categories.

- Assets, for example, are frequently subdivided into *current assets*, *fixed assets*, and *other assets*. Don't let the terminology confuse you. An asset is still an asset. Those that are “current” are defined as cash, or assets that will be converted to cash within a year's time. What assets on the XYZ balance sheet would you identify as current? If your answer is *cash in bank*, *accounts receivable*, and *inventory*, you have the concept down pat!

- Fixed assets, on the other hand, are tangible assets that are more permanent in nature. While they have value to the company and can certainly be sold, the key to identifying them as “fixed” is their physical presence. Which assets on XYZ's balance sheet would you label as fixed? *Land and building* and *machinery and equipment* are the correct answers.

- The final category lumps all “other” assets into a single classification. These assets are usually either intangible in nature, or they represent long-term investments that may require more than one year to convert to cash. On XYZ's balance sheet, *patents* fit the description of “other” assets.

Liabilities are also frequently subdivided on the balance sheet into those that are *current* and those that are *long-term*.

As you would expect, current liabilities are the opposite of current assets. They are claims on a company's assets that are due to be paid in no more than a year's time. On XYZ's balance sheet, current liabilities include *accounts payable*, *wages payable*, and *taxes payable*. Additionally, the portion of XYZ's *mortgage payable* that is due this year is also a current liability. How would you classify that portion of the mortgage that remains to be paid in future years? That is a *long-term liability*.

In the next issue, we'll show XYZ Corporation's balance sheet with these subdivisions, and we'll discuss how the various elements of the balance sheet relate to each other.

GLOSSARY

Assets: Something of value that the company *owns* (see also *tangible assets* and *intangible assets*).

Balance Sheet: A statement that illustrates the financial position of a company at the stated date.

Book Value: The “worth” of a business, which is calculated by subtracting total liabilities from total assets. Also called *owners' equity*.

Intangible Assets: Assets that, by their nature, are usually impossible to see or to touch. They are carried at their cost on the balance sheet under the category “Other Assets”.

Liabilities: Money that is *owed* by the company. Liabilities can be payable to suppliers, vendors, employees, government agencies, or banks.

Retained Earnings: The accumulation of profits since the formation of the company that have not been distributed as dividends.

Owners' Equity: The part of the balance sheet that reflects the “net worth” of the company. It consists of the owners' or stockholders' investments, plus any profits retained to date. Also called *book value*.

Tangible Assets: Assets you can readily see and touch. Each one has a physical presence (e.g., machinery, autos, furniture, inventory).

Beyond the Bottom Line

No. 2

A painless look at finance and accounting for the nonfinancial executive

UNDERSTANDING THE BALANCE SHEET

The information presented on a balance sheet will tell you almost everything you need to know about a company's financial strengths and weaknesses. That's pretty dramatic, considering the complexity of the business world. But it's a fact that, in practice, all roads in business ultimately lead either to economic success or financial disaster. Whether the signposts are marked sales and marketing, production, management, employee relations, or research and engineering, in the final analysis all roads arrive at the balance sheet . . . in one place, and under one of three headings—*assets*, *liabilities*, and *owners' or stockholders' equity*.

As we learned in issue #1, the structure of the balance sheet lends itself perfectly to a very practical equation. It can be helpful as a basic step when preparing to understand the balance sheet.

With assets on the left side of the balance sheet and liabilities and stockholders' equity occupying the right side, we can form a simple but useful equation:

Assets = Liabilities + Stockholders' Equity.

Or, in brief form, $A = L + SE$.

This equation can be changed according to mathematical rules so that we can also say $A - L = SE$.

It is the interplay between these three elements that influences a company's financial well-being. Obviously, the greater a company's assets over its liabilities, the healthier the company. Unfortunately, many a hurried businessperson has been misled by looking only at the total assets and total liabilities. This can make a company *appear* to be healthier than it really is.

In the pages that follow you will learn how the

elements of a balance sheet interrelate and how to accurately diagnose what the "numbers" mean.

WHAT THE NUMBERS MEAN

Let's take a look at the balance sheet for XYZ Corporation, broken down to reflect the subdivisions we discussed in the last issue. (See p. 2) Footnotes have been added to refresh your understanding of what you have learned about balance sheets.

In diagnosing the health of XYZ Corporation, what would you say our X-ray is telling us? Is the patient in good shape, or is he unhealthy?

To fully understand the balance sheet, it is necessary to look *beyond* the numbers. Successful businesspeople look over, around, behind, and through the numbers to understand what the figures mean and how they're influencing each other.

Simply looking at the assets and liabilities of XYZ Corporation would lead us to believe that this business is in pretty solid shape. And that may well be the case. But analyzing the numbers from a *creative* point of view also triggers a few important questions and observations:

- How are we going to pay our suppliers and vendors? Good question! Our *accounts payable* (a liability) stands at \$100,000, while our *cash in bank* (an asset) is only \$40,000. This is where the interrelationships between the numbers begin to come into play. Actually, XYZ has options that will enable it to meet its financial obligations.

Take a look at *accounts receivable*. That's a pretty good chunk of money that will eventually come in and be converted to cash on the balance sheet. XYZ could delay paying its bills until it collects

enough of the \$125,000 to bring its payables up to date. This "cash shortfall" may even motivate the company to do something about collecting the accounts receivable faster, since XYZ is likely a target of the very same delaying tactics it is planning to impose on its own vendors and suppliers. (We'll discuss how XYZ can speed up its collection process in a forthcoming issue.)

Another option XYZ has for generating cash may be to go to its friendly banker for a short-term loan, or a line of credit. This is a common financial practice that is used in business to cover short-term cash shortages. XYZ's balance sheet will quickly illustrate to the bank that the company's accounts receivable are more than enough to cover its accounts payable, even if some of those receivables go sour and eventually have to be written off as bad debt. That should be all the bank needs to approve a short-term loan.

If for one reason or another, neither of these options is available to XYZ, the balance sheet indicates another possible way to generate cash for

the company. *Land and building* is listed as an asset worth \$350,000. Subtract from that the *mortgage payable* liability of \$250,000 and you arrive at an equity position of \$100,000. By applying to the bank for an equity loan, XYZ could generate enough cash to meet its immediate obligations in accounts payable.

In practice, this option would be used only as a last resort. Most companies would be extremely reluctant to incur a long-term debt to finance current operations. It would be the same thing as your taking out a mortgage on your house to pay for groceries and telephone bills—something you would do only under the most pressing circumstances.

- Finally, an observation rather than a question. It appears that the owners of XYZ Corporation have done rather well. Look at the *stockholders' equity* section of the balance sheet. With a \$50,000 investment, the owners now have a company with a net worth of \$309,000—as a result of earnings retained in the company.

XYZ Corporation Balance Sheet As of June 30, 19X9

<u>Assets</u>		<u>Liabilities & Stockholders' Equity</u>	
<u>Current Assets:</u>		<u>Current Liabilities:</u>	
Cash in Bank	\$ 40,000	Current portion of Mortgage Payable	25,000
Accounts Receivable	125,000	Taxes Payable	11,000
Inventory	<u>20,000</u>	Wages Payable	30,000
Total Current Assets	\$185,000	Accounts Payable	<u>100,000</u>
		Total Current Liabilities	\$166,000
<u>Fixed Assets:</u>		<u>Long-Term Liabilities:</u>	
Land and Building	350,000	Notes Payable	\$ 85,000
Machinery and Equipment	<u>200,000</u>	Mortgage Payable	<u>225,000</u>
Total Fixed Assets	\$550,000	Total Long-Term Liabilities	<u>\$310,000</u>
<u>Other Assets:</u>		Total Liabilities	<u>\$476,000</u> ⁽²⁾
Patents	<u>50,000</u>	<u>Stockholders' Equity:</u>	
		Capital Stock	\$ 50,000 ⁽³⁾
		Retained Earnings	<u>\$259,000</u> ⁽⁴⁾
		Total Stockholders' Equity	<u>\$309,000</u> ⁽⁵⁾
Total Assets	<u>\$785,000</u> ⁽⁷⁾	Total Liabilities and Stockholders' Equity	<u>\$785,000</u>

Notes:

1. *Total assets* is the total of what the company owns—tangible and intangible.

2. *Total liabilities* is the total of what the company owes.

3. This is the total amount of money XYZ's stockholders have put into the company, both as original investment and subsequent payments.

4. *Retained earnings* is the accumulation of profits reinvested in the business from the very first day of business, right up to the balance sheet date.

5. This is the *book value*, or worth of the company, and is calculated by subtracting liabilities from assets.

QUICKIE QUIZ

This "Quickie Quiz" will help you check your understanding of the material that has been covered thus far. There is only one correct answer to each question. While some answers may appear to be correct, others are more precise.

Question 1: A *balance sheet* tells the reader:

- _____ A. How long the company has been in existence
- _____ B. The value of the company's assets
- _____ C. The amount of money stockholders have invested in the company
- _____ D. The financial health of the company

Question 2: An *Asset* can be defined as:

- _____ A. Something having value
- _____ B. An amount owed to our suppliers/vendors
- _____ C. Something of value that a company owns
- _____ D. The original investment made by stockholders

Question 3: Which of these represents a *liability*?

- _____ A. Inventory
- _____ B. Accounts Payable
- _____ C. Retained Earnings
- _____ D. Accounts Receivable
- _____ E. All of the above

Question 4: If your company succeeded in getting a \$10,000 loan from a bank, how would it affect the balance sheet?

- _____ A. Assets would increase (Cash)
- _____ B. Retained earnings would increase
- _____ C. Liabilities would increase (Notes Payable)
- _____ D. Both assets and liabilities would increase

Question 5: Which one of these companies would you choose to own, and why?

- _____ A. One high in retained earnings
- _____ B. One rich in assets
- _____ C. One with low liabilities
- _____ D. One where the assets equal the liabilities

Question 6: You're facing a situation where your business is temporarily short of cash needed to satisfy its accounts payable. What three actions might you take to correct this situation?

- 1. _____
- 2. _____
- 3. _____

Question 7: Can you name two examples of intangible assets?

1. _____
2. _____

Question 8: Match the situation in the left-hand column with the appropriate consequence in the right-hand column.

- | | |
|---|--|
| 1. We pay an invoice our company was holding for 30 days. | A. Assets Increased/
Liabilities Increased |
| 2. Our bank approves our company's request for a \$50,000 loan and deposits the funds into our account. | B. Two Assets
Increased |
| 3. The year ends, and our company enjoys a \$75,000 profit. | C. Assets decreased/
Liabilities Decreased |
| 4. One of our company's owners invests an additional \$25,000 in the business. | D. Two Liabilities
Increased |
| | E. Retained Earnings
Increased |
| | F. Retained Earnings
Decreased |
| | G. Owners' Equity
Increased/Assets
Increased |

Quickie Quiz in Review

Question 1: The correct answer is D. While answers B and C are also correct, you wouldn't go to the trouble of putting together a balance sheet specifically to learn these things. Answer D is the most exact answer.

Question 2: The correct answer is C. Don't be misled by answer A. Lots of things have value. In order for them to be assets, however, a company has to *own* them. Answer B reflects a liability, answer D is part of owners' equity.

Question 3: The correct answer is B. Inventory is an asset because it has value and is owned by the business. Similarly, accounts receivable is an asset because it represents the equivalent of cash. Retained earnings represent profit that is reflected in the owners' equity section of the balance sheet.

Question 4: The correct answer is D. The inflow of cash from any source increases assets. In the case of a loan, or note payable, an increase in liability also occurs. In this instance, retained earnings (answer B) are not affected.

Question 5: The correct answer is A. Assets and liabilities, when considered separately (answers B and C), are meaningless. Similarly, answer D reflects a company that has no value. If it went out of business tomorrow, there would be no profit for its owners. Answer A represents an enviable equity position—the reinvestment of capital and profits.

Question 6: See pages 1 and 2 in this issue for some suggested options.

Question 7: Remember that intangible assets are often difficult to distinguish because their value may be subjective and their "presence" more vague than that of tangible assets. Patents, copyrights, and computer software are all examples of intangible assets.

Question 8:

- Number 1 matches with C. You have expended an asset to reduce a liability.

- Number 2 matches with A. An influx of cash has increased your assets, but you have also become liable for a debt in the form of a note payable.

- Number 3 matches E. Retained earnings are defined as the accumulation of profits.

- Number 4 matches with G. An influx of cash increases our assets and, because this cash has come in the form of an investment that has been made by one of the company's owners, *owners' equity* also increases.

Beyond the Bottom Line

A painless look at finance and accounting for the nonfinancial executive

THE INCOME STATEMENT

Another important financial report that is widely used in the business world is the income statement. The balance sheet is like an X-ray that reveals the financial health of a company at a specific *point in time*; the income statement reports the results of operations over a specific *period of time*.

The distinction between the two reports is important. While the balance sheet may indicate a general condition of financial health or illness, the income statement will reveal how well, or poorly, a company has done for the past month, quarter, or year. The income statement provides an "instant replay" of recent activity, and enables management to react quickly to trends and changes in business conditions. The balance sheet, being static in nature, may not reflect these changes until they have become irreversible. The income statement provides a vital early warning system for management.

PARTS OF THE INCOME STATEMENT

There are only three basic parts of an income statement. These are (1) revenues, (2) costs and expenses, and (3) net income or loss. The basic equation is: revenues minus costs equals net income or loss. This holds true for all income statements. Let's examine each of these parts in a little greater detail.

Revenues

The revenue section of the income statement reflects the amount of money received, or earned, by a company during the period being measured. Revenues generally are derived from the sale of products or services, but they may also result from such sources as investment income, property rental, or scrap sales.

Revenues may be recorded when payment is *received* if a company maintains its books on a

"cash basis". The vast majority of businesses, however, use the "accrual method" of accounting. They record revenues when they are *earned*—when a sale is made or a service is rendered, for example. Under the accrual method, therefore, revenues may be reported on an income statement before payment has actually been received.

If you refer back to the balance sheet in issues 1 and 2, you will recall an asset called "accounts receivable". This represents amounts owed to a company by its customers for sales that have been billed but not yet paid as of the balance sheet date.

Costs

Costs and expenses are the other side of the coin. They represent expenditures that are made during the period, either to produce revenues or to provide for general business operations. If you buy 1000 widgets for \$20 each, for example, and sell them all for \$30 apiece, you would record revenues of \$30,000 and costs of \$20,000. If you spent \$500 per month to rent office space, you'd report that as an expense on your income statement.

Like revenues, costs may be recorded when paid (cash basis) or when incurred (accrual basis). The liability "accounts payable" on the balance sheet is made up of amounts owed to vendors for items or services received but not paid for.

Not all expenditures made by a company can be reported as costs or expenses on its income statement. The purchase of a building or equipment having an expected life of more than one year would be capitalized, and recorded on the balance sheet as a fixed asset. Companies may then write off (depreciate) a portion of the total asset cost each year, as an expense on the income statement. Another cost that is shown on the balance sheet is the value of a company's inventory—goods purchased or manufactured that have not yet been sold.

Some common examples of costs and expenses incurred during the normal course of doing business are:

- Wages and salaries
- Employee benefits
- Raw materials and production supplies
- Products purchased for resale
- Utilities
- Repairs and maintenance
- Shipping and warehouse expenses
- Sales commissions
- Advertising
- Interest expense
- Income taxes

Net Income or Loss

We've all heard the expression "the bottom line", meaning the end result, after all the pluses and minuses have been tallied. But do you know where it originated? If you took a wild guess at the income statement, you'd be absolutely right.

The "bottom line" of an income statement, *net income*, represents the end result of a company's operations for the period. After adding all the pluses (revenues) and deducting all the minuses (costs and expenses), what's left is designated net income. It tells management how well they've done ... whether they've made money or not ("net loss").

XYZ CORPORATION'S INCOME STATEMENT

Figure 1 shows a simplified income statement for XYZ Corporation for the first six months of its fiscal year. Note that all sources of revenue are listed and totaled at the top of the statement. Then all costs and expenses are listed with a second total. The difference between the two totals (the excess of revenues over costs) is net income.

What can we learn about XYZ Corp. from its income statement? To begin with, we can tell that it made money during the six months. Its revenues were \$27,000 higher than its costs, which resulted in net income on the "bottom line". We also have a good idea of where its revenues came from (sales to customers, sale of scrap, etc.), and what its expenditures were for (salaries, materials, utilities, etc.).

What else would we expect to learn from XYZ's income statement? That will depend a great deal on who we are and why we're interested in XYZ Corp. Users of financial reports are a diverse lot ... each with his own particular interests and requirements. The investor looks at profitability, growth, and return on investment. The creditor is more interested in liquidity and the ability of a company to pay its bills on time. Internal manage-

ment, on the other hand, needs far more detailed information about how their company is doing, in order to make sound business decisions. The structure and format of the income statement, therefore, will generally be tailored to the needs of the user.

Figure 1
XYZ CORPORATION
INCOME STATEMENT
SIX MONTHS ENDED JUNE 30, 19X9

Revenues:	
Sales to Customers	\$425,000
Sale of Scrap	17,000
Rental Income	10,000
Interest Income	8,000
Total Revenues	<u>\$460,000</u>
Costs and Expenses:	
Salaries and Wages	\$182,000
Employee Benefits	45,000
Raw Materials Used	75,000
Utilities	15,000
Repairs and Maintenance	10,000
Depreciation	20,000
Shipping Expenses	5,000
Sales Commissions	18,000
Advertising	15,000
Occupancy Costs	20,000
Interest Expense	5,000
Income Taxes	23,000
Total Costs and Expenses	<u>\$433,000</u>
Net Income	<u>\$ 27,000</u>

ABC COMPANY'S INCOME STATEMENT

Let's take a look at another format for an income statement. Figure 2 shows the income statement for ABC Company, Inc. for the same six-month period. What do you notice immediately? First of all, there is more than one column of numbers. ABC Company has reported data for not only the current period but the same period from the prior year as well. This enables the reader to compare the two periods and to identify any significant differences or trends.

ABC Company has gone one step further by expressing each line item as a percentage of net sales. This reveals certain operating relationships, such as the gross profit percentage, which may be of interest to management, particularly in comparison with a prior year.

The last important distinction between the two income statements is in their presentation of revenues and costs. XYZ Corp. merely listed all

Figure 2
ABC COMPANY, INC.
COMPARATIVE INCOME STATEMENT
SIX MONTHS ENDED JUNE 30, 19X9 & 19X8

	19X9		19X8	
	\$	%	\$	%
Net Sales	2,500,000	100	2,000,000	100
Less: Cost of Goods Sold	1,775,000	71	1,460,000	73
Gross Profit	725,000	29	540,000	27
Less: Operating Expenses:				
Sales and Marketing Expenses	175,000	7	120,000	6
Administrative Expenses	250,000	10	240,000	12
Total Operating Expenses	425,000	17	360,000	18
Operating Income	300,000	12	180,000	9
Add: Interest and Other Income	25,000	1	20,000	1
Net Income Before Taxes	325,000	13	200,000	10
Provision for Income Taxes	150,000	6	80,000	4
Net Income	175,000	7	120,000	6

sources or revenues and all expenses. ABC Company has provided less detail, but it has arranged its revenues and costs into useful classifications (net sales, cost of goods sold, operating expenses, etc.) and it has provided some meaningful sub-totals (gross profit, operating income, net income before taxes, etc.).

We can learn more from ABC's income statement than from XYZ's because they've presented the information in a more meaningful format. Let's take a closer look at ABC's income statement and see how we can analyze and interpret the results.

Net Sales: This includes all sales made by ABC to its customers during the first six months of the fiscal year. We can see that ABC is off to an excellent start this year... sales are up by \$500,000 compared to the first half of last year.

Cost of Goods Sold: This represents the cost of all purchases and labor that went into making the products that ABC *sold* during the period. (It does not include the costs that went into making products still in inventory at June 30th.) Although these costs were greater than last year, we would have expected that because of the sizable increase in sales. The percent column shows us that ABC improved its production efficiency; it reduced the cost of goods sold from 73 percent of net sales to 71 percent.

Gross Profit: This number is derived by subtracting cost of goods sold from net sales. An easy way to think of gross profit: it is the amount left over from sales after all the costs of making the product that was sold have been deducted. This amount is now available to help pay for all the other costs of doing business.

Operating Expenses: These represent all the other expenses incurred by ABC Company in running the business. ABC has subdivided these expenses into two major categories: Sales and Marketing Expenses, and Administrative Expenses.

Sales and Marketing Expenses: These include expenditures such as sales commissions, advertising, and promotion costs. These expenses relate directly to sales volume, so we would expect them to increase as sales increase. This held true for ABC Company during the first half of their fiscal year.

Administrative Expenses: This category serves as a catchall for costs and expenses that don't fall into either cost of goods sold or sales and marketing expenses. It includes costs not directly related to producing or marketing and selling ABC's products. Some examples of administrative expenses are: office salaries, office rent, legal and audit fees, telephone charges, and general office supplies. ABC's administrative expenses went up only slightly compared to last year, and represented a lower percent of net sales. This tells us that these costs are not particularly sensitive to changes in sales activity.

At this point we should note that, unlike XYZ Corp., ABC Company's income statement does not detail for us the expenses that were actually incurred. This is generally done by providing supporting schedules for each of the three major categories of cost and expense. (We'll discuss this in a future issue.)

Operating Income: This represents the amount of income that ABC made during the six-month period from its principal operations. As we can see, operating income was up substantially from last year, in absolute dollars as well as in percentage of net sales.

Interest and Other Income: This category includes the net income from all nonoperating and financial income (from investments) earned during the period. Common examples of items reported on this line of the income statement are: interest income from notes and investments, rental income (unless the company is in the real estate business), and gains or losses on foreign exchange transactions. These all result from activities outside the scope of ABC's normal operations.

Net Income Before Taxes: The amount of income ABC Company earned from all activities during the period is shown on this line. This is an excellent indicator of how well a company has done over a measured period of time. As we can see, ABC Company has done extremely well. They've made \$325,000 before taxes in the first half of the year, which represents 13 percent of net sales. That's a

big improvement over the first six months of last year, when the corresponding numbers were only \$200,000 and 10 percent.

Provision for Income Taxes: The income taxes paid by ABC Company—state and local, as well as federal—are shown on this line. All other taxes paid (sales and use, payroll, etc.) are included with operating expenses.

Net Income: This is the “bottom line” for ABC Company for the first six months of its fiscal year. This income accrues to ABC’s owners (shareholders) and is included in their retained earnings on the balance sheet.

You should now be familiar with the format and content of both balance sheets and income statements. In future issues you’ll learn how to interpret these financial reports in greater detail.

QUICKIE QUIZ

Test yourself to determine your understanding of the income statement. A reminder—some answers may *appear* to be correct, but others are more precise.

Question 1: The income statement tells the reader three of the four following facts. Pick out the *one* fact that the income statement *doesn’t* reveal:

- _____ A. The net income of the company for the period.
- _____ B. The value of what the company owns.
- _____ C. The period of time the income statement covers.
- _____ D. The company’s total revenues for the period.

Question 2: The following financial terms appear either on the *balance sheet* or on the *income statement*. Next to each item, circle your choice, (B) for balance sheet, (I) for income statement.

Mortgage Payable	B	I
Cash	B	I
Utilities	B	I
Machinery and Equipment	B	I
Salaries and Wages	B	I
Retained Earnings	B	I
Raw Materials Used	B	I
Interest Income	B	I
Accounts Receivable	B	I
Commissions Paid	B	I

Question 3: The balance sheet is divided into three parts. Likewise, the income statement consists of three parts. Can you name them all without referring back to the text?

Parts of the Balance Sheet

1. _____
2. _____
3. _____

Parts of the Income Statement

1. _____
2. _____
3. _____

Question 4: When the total expenses reported on an income statement amount to more than the total income, the resulting figure is referred to as:

- _____ A. Net Profit
- _____ B. An Asset
- _____ C. Retained Earnings
- _____ D. Net Loss

Quickie Quiz in Review

Question 1: The correct answer is B. Remember, anything having to do with the *value* of what a company owns—assets—appears on the balance sheet.

Question 2:

Mortgage Payable	(B)	I
Cash	(B)	I
Utilities	B	(I)
Machinery and Equipment	(B)	I
Salaries and Wages	B	(I)
Retained Earnings	(B)	I
Raw Materials Used	B	(I)
Interest Income	B	(I)
Accounts Receivable	(B)	I
Commissions Paid	B	(I)

Question 3:

Balance sheet: Assets, liabilities, owners’ equity.
Income Statement: Revenues, costs/expenses, net income/loss.

Question 4: The correct answer is D.

Beyond the Bottom Line

No. 4

A painless look at finance and accounting for the nonfinancial executive

COSTS AND EXPENSES

In issue #3 of *Beyond the Bottom Line* we presented income statements for two hypothetical companies—ABC Company and XYZ Corporation. The statements were relatively straightforward and uncomplicated, designed to show you how revenue and expense items relate to each other and to the bottom line. In this issue we narrow our focus to the distinctions between various types of costs and expenses that appear on the income statement, and what these distinctions mean.

SIMILAR, YET DIFFERENT

To many of us, the terms “cost” and “expense” mean pretty much the same thing. They may be defined as “ordinary and necessary expenditures incurred during the course of conducting business”. While that may be all you need to know from a practical standpoint, you will be far better informed if you understand how costs and expenses differ, both in meaning and in financial application. While financial people can and generally do use the terms interchangeably, their understanding of “cost” is quite different from that of “expense”.

Strictly speaking, the term *cost* may be applied to any expenditure for goods or services required in the normal course of running a business. Many of these expenditures have value and utility that last over a long period of time, such as construction costs or costs incurred to acquire patents or copyrights. Other expenditures are for items that go into producing a product, such as raw materials or direct manufacturing labor. For wholesalers or retailers, products purchased for resale represent a cost.

Still other expenditures are made for goods and services that do not go into producing a product, but that will be expended or “used up” during the normal course of business over a defined period of time, usually one year. These costs are referred to as *expenses*, and by their very nature they will not retain any value or utility after they have been used. Common examples of expenses

are office salaries, heat and electricity, travel and entertainment, and consumable supplies.

Another distinction between costs and expenses is their treatment in a company’s financial statements. Expenses are recorded in the income statement as deductions from revenues to determine profit. Costs, on the other hand, may appear in both the income statement and balance sheet, depending upon whether they have been utilized during the period or retain value at the end of the period.

CATEGORIES OF COST AND EXPENSE

Let’s take a look at the way costs and expenses are generally presented in an income statement. Referring back to the income statement for ABC Company (in Issue #3), we saw that costs and expenses were categorized as follows:

- Cost of goods sold
- Sales and marketing expenses
- Administrative expenses

It’s important that we understand what these terms mean and the type of costs and expenses that are associated with each.

Cost of Goods Sold

While the term “cost of goods sold” may be self-explanatory, we must understand what type of costs are included and how they are measured. This category includes the costs that are directly associated with producing or purchasing a product for resale. Some common examples are raw materials, direct manufacturing labor, and in the case of retail or wholesale operations, purchases of finished products. A key point to remember is that only those costs relating to products that have been sold during the period should be included in cost of goods sold.

What about costs we’ve incurred to produce a product that hasn’t been sold? Where do they

appear? These costs become part of our inventory and are shown as an asset (something of value that we own) on the balance sheet. If we think about the normal business cycle for a manufacturing company, we realize that goods are produced, they are stored in inventory, and then they are sold. All these operations are continuous and simultaneous. When we attempt to measure the cost of goods sold for a defined period of time, we must understand one of the basic cost equations used by accountants:

$$\begin{array}{r}
 \text{Inventory at the beginning of the period} \\
 + \text{ Purchases during the period} \\
 \hline
 = \text{ Cost of goods available for sale} \\
 - \text{ Inventory at the end of the period} \\
 \hline
 = \text{ Cost of goods sold}
 \end{array}$$

Simple, easy to understand, yet it works every time . . . for every kind of business that produces or sells a product. At this point it's all we need to know about cost of goods sold.

Marketing and Sales Expenses

Of course, not all costs are directly related to producing or purchasing a product. Some costs are incurred in trying to sell the product, or to distribute it, or even to find or create a market for it. These kinds of costs are categorized as "sales and marketing expenses". They are referred to as expenses because they are used up (expended) during the period and retain no measurable value for the future. As expenses, they are properly charged against income in the period in which they are incurred.

Can you think of some common examples of sales and marketing expenses? Salaries and commissions paid to a sales force is one that immediately comes to mind. Advertising and sales promotion expenses also fall into this category, as do warehousing and delivery costs. In fact, any expenditure made to get a finished product to the point of sale may be classified as a sales and marketing expense.

Administrative Expenses

The final category is sort of a catchall for costs and expenses that cannot be properly categorized as either cost of goods sold or sales and marketing expenses. While not directly related to producing or selling a product, administrative expenses are no less important to operating a business. Could you conceive of your business running without its officers and managers, or its office staff? Unless you pay for heat and electricity for your offices, they would be virtually useless. And think of what a day at work would be like if you had no pencils, paper, paperclips, or rub-

berbands. Not to mention the computer, with all its associated hardware, software, supplies, and maintenance costs.

These are all common examples of expenditures made in the ordinary course of business that are categorized as administrative expenses. It's often hard to show that these expenses have any impact on sales, but no company could exist for long without them.

We segregate these three categories of costs and expenses from one another in the income statement to help us better understand the data and interpret how well the company is doing. We can see at a glance the relationship between each category and net sales (usually expressed as a percentage), as well as how they compare to one another. By comparing these relationships (ratios) over a period of years, we can see whether significant changes have occurred, and whether they may be cause for concern. (We'll have more to say about these financial ratios in future issues.) Similarly, we can compare each category to a budget or business plan to see how closely the company has achieved its objectives. Separating costs and expenses into major categories on the income statement is an important first step in providing more useful financial information.

EXPANDING THE INCOME STATEMENT

We have continually referred to the income statement as a financial tool used by management to help control business operations. We've emphasized the importance of having complete information and classifying costs and expenses accurately for comparative purposes. Summary income statements, like the ones we presented for ABC Company and XYZ Corp. back in issue #3, do not provide enough data to really be of help to management.

Let's take another look at the income statement for ABC Company.

Net Sales	\$2,500,000
Less: Cost of Goods Sold	<u>1,775,000</u>
Gross Profit on Sales	<u>725,000</u>
Less: Operating Expenses:	
Sales and Marketing Expenses	175,000
Administrative Expenses	<u>250,000</u>
Total Operating Expenses	<u>425,000</u>
Operating Income	300,000
Add: Interest and Other Income	<u>25,000</u>
Net Income Before Taxes	325,000
Provision for Income Taxes	<u>150,000</u>
Net Income	<u>\$ 175,000</u>

At best, this income statement can be described as an abbreviated or summary report. It identifies costs by each of the three major categories we've discussed—cost of goods sold, sales and marketing expenses, and administrative expenses. But what does this statement really tell you about ABC's expenses? Can you draw any conclusions as to whether these costs are excessive, or perhaps even inadequate to meet the company's objectives? We can develop some broad ratios relating each category to net sales, perhaps, and compare each against some predetermined budget or goal. But we can't do very much in the way of controlling these costs unless we know more about what they are.

So let's expand ABC's income statement so that it provides information that will better help us analyze the company's performance during the period. This is generally done by providing supplementary schedules for each cost category. These schedules should include all the individual line items (generic cost and expense classifications) that make up the total. For example, a detailed Cost of Goods Sold schedule for ABC Company would look something like this:

ABC Company Cost of Goods Sold For the Six Months Ended June 30, 19X9	
Inventory, beginning of period	\$ 200,000
Add: Purchases:	
Raw materials	315,000
Materials purchased for resale	110,000
Payroll—production workers	715,000
Payroll—plant supervision	185,000
Payroll taxes	160,000
Group health insurance	52,000
Outside contractors	72,000
Depreciation—building	21,000
Depreciation— machinery & equip.	26,000
Real estate taxes	18,000
Property insurance	16,000
Factory supplies	18,000
Equipment repairs & maintenance	15,000
Heat and electricity	22,000
Total Purchases	<u>1,745,000</u>
Total available for sale	1,945,000
Less: Inventory, end of period	<u>170,000</u>
Cost of goods sold	<u>\$1,775,000</u>

You will note that the total cost of goods sold from the supplemental schedule is the same as the cost of goods sold line on the summary income statement. This verifies that we have accounted for all the cost components that make up this category. Similarly, we should be able to trace the line for ending inventory directly to ABC Company's balance sheet.

To complete the full income-statement package, ABC Company should also provide detailed supplementary schedules for sales and marketing expenses and for administrative expenses. Armed with this additional information, management is in a far better position to effectively analyze how well ABC Company has done during this period.

COST ALLOCATIONS

The cost of goods sold schedule for ABC Company reveals certain cost and expense items that are directly related to production operations, such as raw materials, factory payroll, and outside contractors. Other costs in the schedule, however, do not result from direct production activities, but represent allocations of a share of expenditures that were made for the benefit of many departments and operations in the company. The theory behind allocating indirect costs is that each operation should be charged its share of a common cost or expense on the basis of the benefit received.

For example, depreciation of the building is probably charged to each operation on the basis of square feet of space used. (Depreciation of machinery, on the other hand, is directly related to factory equipment, so no allocation is necessary.) Can you think of any other costs that may have been allocated on the basis of square footage? How about real estate taxes, or heat and electricity?

Square footage is not the only basis for allocating costs among operations. Some companies may allocate items such as payroll taxes and group health insurance on the basis of number of employees or total payroll dollars. Understanding cost allocations and how they have been determined is an important factor in analyzing a company's income statement.

By expanding the information contained in the income statement of ABC Company, we have added greater substance and meaning to the numbers and enhanced the completeness of the report. In a future issue of *Beyond the Bottom Line* we will show you how to analyze and interpret that information and use it to make well-informed management decisions.

QUICKIE QUIZ

The listing that follows includes a number of varied costs and expenses. Check the category on the income statement in which each item should appear. (Some of them may be allocated to more than one category.) When you've finished the quiz, you can refer to the completed checklist.

	Cost of Goods Sold	Sales/Mktg Expenses	Administrative Expenses
Salaries—Factory Workers			
Salaries—Accounting Dept.			
Sales Commissions			
Payroll Taxes			
Health Insurance			
Advertising			
Raw Materials Purchased			
Production Supplies			
Office Supplies			
Rent—Building			
Heat and Electricity			
Legal Fees			
Shipping Expenses			
Manufacturing Equipment Repairs			
Market Research			
Liability Insurance			

	Cost of Goods Sold	Sales/Mktg Expenses	Administrative Expenses
Salaries—Factory Workers	✓		
Salaries—Accounting Dept.			✓
Sales Commissions		✓	
Payroll Taxes	✓	✓	✓
Health Insurance	✓	✓	✓
Advertising		✓	
Raw Materials Purchased	✓		
Production Supplies	✓		
Office Supplies			✓
Rent—Building	✓	✓	✓
Heat and Electricity	✓	✓	✓
Legal Fees			✓
Shipping Expenses		✓	
Manufacturing Equipment Repairs	✓		
Market Research		✓	
Liability Insurance			✓

Beyond the Bottom Line

No. 5

A painless look at finance and accounting for the nonfinancial executive

CASH FLOW

In previous issues, you gained a fundamental awareness of the interrelationships between the balance sheet and the income statement, and of the ways that you can apply that knowledge to help you understand what's really going on in a company. In this issue, we introduce a new subject that is equally important to your understanding of the financial process—*cash flow*.

The main ingredient in the world of business is cash. During the normal business cycle, cash is transformed into a product or service for sale or resale. If everything goes according to plan, the company sells its product or service and ends up with more money than it had when the process started. This movement of cash is known as *cash flow*.

Cash flow is one of the most important concepts you will face in the world of financial management. Companies that manage their cash flow well are usually assured of a smooth and financially trouble-free continuation of their business. Companies that permit customers, vendors, employees, or events to delay and erode the cash-flow cycle are *definitely* assured of a financially troubled existence—if they continue to exist at all.

It is estimated that approximately half a million new companies are established each year. Nearly as many businesses—both new and well established—fail and *go out* of existence each year. The majority of new business successes can be attributed at least in part to astute cash-flow management. The converse is also true—the majority of business *failures* are the result of poor cash-flow management.

With this recognition of the vital importance of cash flow in mind, let's examine the way it works.

LIQUIDITY

You will recall from our earlier discussion of the balance sheet that it is important for a company to maximize its assets in relation to its liabilities.

While this is certainly true, the *liquidity* of its assets is even *more* critical to the ongoing success of a business.

Think of "liquid" as being synonymous with "spendable" and the picture will begin to come into focus. In fact, think of it in terms of your personal balance sheet. You may have a very impressive "asset value" in terms of real estate, antiques, jewelry, and other "fixed" assets, but you can't make your monthly mortgage payment by sending the bank a piece of jewelry or a wicker rocker.

Similarly a business can't pay its bills by sending a vendor a piece of equipment. A business, like an individual, has to *plan* for enough "liquidity" to meet its ongoing financial obligations. The trick in business, as at home, is to match our liquid assets (cash, "cash-equivalent" investments, and accounts receivable that will soon convert to cash) with our short-term cash needs. Rarely is the problem of one of having *too much* liquidity. If that is a problem at all, it is a happy one. Instead, for most businesses, as for most of us, problems occur when cash *needs* outpace cash *availability*.

THE CASH-FLOW CYCLE

To better understand the cash-flow process, let's expand and clarify our earlier discussion.

In the case of a manufacturing organization, the entire process of cash flow revolves around a product. We "spend" cash to purchase and convert raw materials into a salable product. We ship the product, bill the customer, and finally close the loop when payment for the product is received. Look closely at the process, however, and it becomes apparent that cash "flows" in two directions.

An "outflow" of cash develops early in the process when we, as a company, invest in the manufacture of our product. Raw materials are purchased, wages are paid, advertising and

manufacturing expenses are incurred, and a myriad of other “outbound” costs are involved in bringing the product to the point of sale. It is at the point of sale that the process of cash “inflow” begins. Cash may be received at the point of sale, or at some time in the future when the customer pays his bill. When our company is operating in accordance with its profit objectives, our cash “inflow” is greater than our cash “outflow”. And that’s good. Unfortunately, there may also be times when our company’s cash “outflow” is greater than its cash “inflow”. And, unless it’s a short-term planned condition, that’s bad. But more about that later.

The cycle of “cash to cash”, then, is known as *cash flow*. And it’s an ongoing process. The objective is to keep the cycle moving. If we own a business, our mission is to maintain a continuous “inflow” of cash, thereby assuring the ongoing level of liquidity that is needed to pay our bills in a timely way, invest in more raw materials, and continue the manufacturing, marketing, and collection process over and over again. The trick and the challenge in doing that is to keep the span of time between cash outflow and cash inflow as short as possible. If any of the linkages break down, the ongoing cycle of cash flow slowly grinds to a halt. When that happens to a business—any business—the corporate death knell begins its slow and ominous toll.

Retail and Service Companies

If your particular interests happen to focus on the retail or service sectors of the business world, don’t feel left out. Although we’ve used a manufacturing company as an example, the cash-flow concept applies equally to retail and service oriented businesses. The objective in every business is to turn its cash “outgo” back into cash “income” as quickly as possible, so that the process of cash flow can continue.

A retailing organization, for example, begins its cash flow process with payment to a wholesaler for a product that will be resold from the retailer’s display shelf. Once a customer pays for that product, whether it be a tube of toothpaste, a pair of shoes, or a new TV, the cash-flow process for that particular product is complete. The retailer has regained control of his cash, he can pay his bills, reinvest in more toothpaste, shoes, or TVs, and keep the cycle moving.

Where the process tends to bog down is when that toothpaste remains on the retailer’s display

shelf and is not converted back into cash in a timely way. In that event, the retailer’s liquidity is adversely affected and the ability of the business to continue to operate becomes seriously hampered. It doesn’t matter whether the business is a manufacturer, a retailer, or provides a service. An organization can be rich in fixed assets, but that doesn’t mean very much if it isn’t paid in a timely way by its customers.

CASH FLOW DIAGRAMED

The illustration on page 3 presents cash flow in a visual manner. Although it is greatly simplified, it will help you to understand many of the implications of this important financial concept.

Step 1: Let’s assume the ABC Company manufactures widgets. The cash-flow cycle, therefore, begins with an outlay of cash to purchase raw materials. On average, these raw materials will remain in inventory for 30 days before they are put into production.

Step 2: The next step in the cycle is for ABC Company to begin production of the widgets. Raw materials are consumed, labor is expended, and productive machinery is utilized. The entire production process, from start to finish, takes five days.

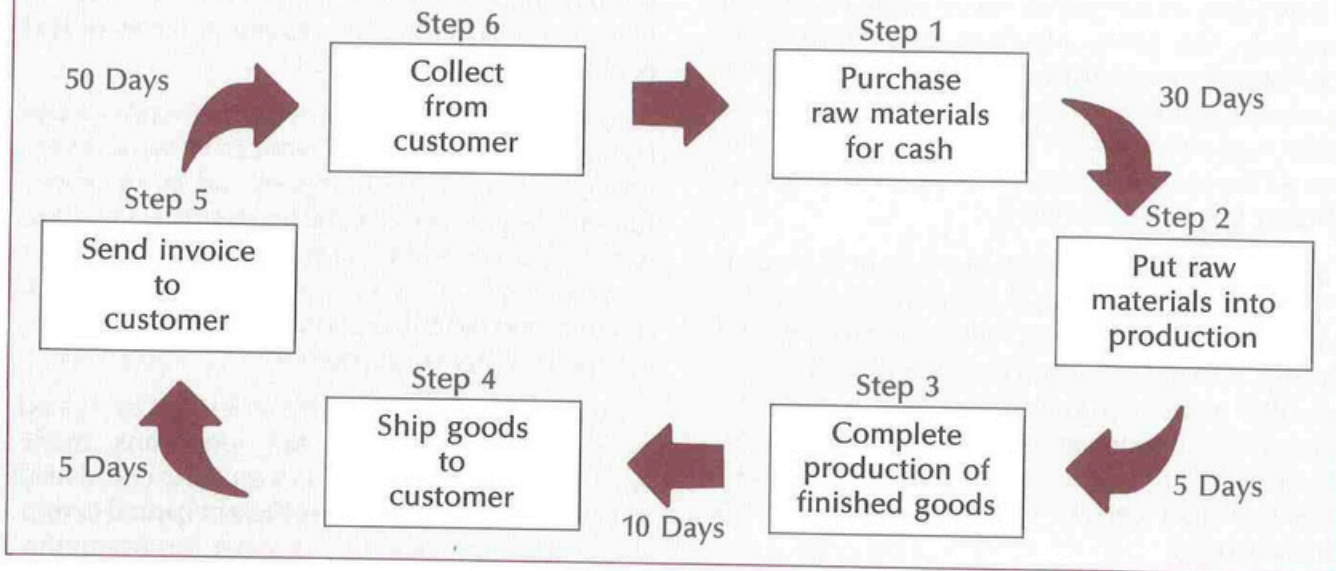
Step 3: Once ABC’s widgets have been completed, they are put into finished-goods inventory waiting to be sold. They will remain in stock for an average of 10 days before being shipped to customers.

Step 4: The next stage in the cycle, therefore, is the sale and shipments of the finished widgets, from ABC’s inventory to its customers.

At this point, let’s recap where the ABC Company is in its cash-flow cycle. Since expending cash to purchase raw materials, 45 days have passed. During that time ABC has used the raw materials to produce finished widgets, which they have sold and shipped to their customers. Still no cash has “flowed in”, but much has “flowed out” during this period—to pay for the raw materials, as well as salaries and other overhead costs that ABC Company has incurred.

Step 5: In order to eventually collect for the widgets that were sold, ABC’s Billing Dept. must prepare an invoice and send it to the customer. Without this simple, yet vital document, the entire cash-flow cycle would come to a grinding halt. Let’s assume that the average time lag between shipment and billing is another 5 days.

ABC Company Cash Flow Cycle



Step 6: The final step in the cash-flow cycle, and the one that every other step is geared toward, is the collection of cash from the customer. In ABC's case, this process generally takes 50 days from the billing date. The cash, usually in the form of a check, is then deposited into a bank account, and becomes available for the entire cycle to begin anew. ABC Company has been able to charge more for its widgets than their cost, so the total cash inflow upon collection is greater than the total of the cash outflows. This resulting "profit" can be used to help finance future expenditures.

A brief summary of ABC's cash-flow cycle reveals an average of 100 days between initial outlay and ultimate collection:

Raw materials held in inventory	30 days
Production of widgets	5 days
Finished widgets held in inventory	10 days
Invoice prepared and mailed	5 days
Collection from customer	<u>50 days</u>
Total time	100 days

Now let's take a look at the effect this 100-day cash-flow cycle has on the operations, and profitability, of ABC Company.

IMPACT OF 100-DAY CASH CYCLE

Suppose for a moment that you drew a pay-

check only once every 100 days. What would that do to your personal liquidity? Would you have the discipline or even the ability to budget that income so there would be enough cash available *throughout* the 100-day cycle for food, shelter, entertainment, transportation, clothing, etc.? And what about socking away an appropriate reserve for extraordinary medical or dental expenses? Could you manage the process on a 100-day cycle, or is it more likely that one of the unanticipated financial emergencies that crop up from time to time would force you to seek more immediate financial relief, rather than wait for the next 100-day injection of cash?

A business is not very different. In all likelihood, a 100-day cash cycle will force management to seek some short-term financial relief. What options are readily available? If the company has established a credit record, or has sufficient capital, it could request an extension of time from its suppliers to pay their bills. Payment terms of up to 30 days from date of delivery are fairly common in the business world.

This practice can be quite effective, but it only works with outside vendors. You obviously could not expect the same accommodation from your employees. They are used to getting paid when they work, or at least shortly thereafter. Moreover, for many companies, particularly labor-intensive service organizations, salaries and benefits are the largest single element of cost.

There is, however, another practical option for a business caught in a short-term cash crunch. It does what we as individuals do when faced with precisely the same situation—it exercises the privilege of going further into debt! It obligates itself to a short-term line of credit or to some other form of financial liability in order to sustain its business until such time as another inflow of cash becomes available.

Not an uncommon business practice. In fact, it's very common. Does it solve the problem? It can, if the line of credit is managed properly. Of course, if managed improperly, additional debt can also make a company's cash-flow situation worse. Just remember that while credit can provide a quick fix to a company's "inbound" cash needs, it also carries some "outbound" cash responsibility.

Borrowing money adds a very real, identifiable cost that many companies either lose sight of or don't fully understand. To illustrate this, let's return to ABC Company and its 100-day cash-flow cycle. Let's assume that ABC has filled an order for \$5,000 of widgets, and that ABC's total cost to produce, store, market, and deliver these widgets is \$4,500. The remaining \$500 represents a 10 percent profit on the transaction.

What happens, however, if ABC Company does not have sufficient cash resources to finance the 100-day process, during which time, if you remember, cash is flowing out, but none is flowing in? ABC would probably have to go to its local bank to borrow the money, and pay interest charges on the amount borrowed. For simplicity's sake, let's assume ABC is able to borrow the full \$4,500 (its cost) for 100 days at 12 percent. If you've got a calculator handy you can check the figures.

Amount borrowed (\$4,500) x rate of interest (12%)
= annual interest (\$540)
Annual interest x term of loan (100 days) ÷ 360 days
= total interest (\$150)

Since the interest paid to the bank is an expense, much the same as materials and labor, it must be deducted from the amount of the sale to determine the profit. \$500 less \$150 leaves a profit on the transaction of only \$350, or 7 percent of the selling price. Looking at it another way, 30 percent of the entire profit on the sale has been eroded due to the need to borrow money. If we

assume that ABC Company is using borrowed funds to finance other jobs during this 100-day period, and if that need should continue into the next cash-flow cycle, the results in terms of lost profits could be disastrous.

Lost or eroded profits, however, are not always the main problem. Insufficient cash flow, if severe enough, can drive a company out of business. Roughly 80 percent of all businesses that fail make a profit during their last year. They don't suffer from a lack of profits... they suffer from a lack of adequate cash flow, which eventually chokes off their ability to perpetuate their business.

Invariably, cash-flow difficulties can be traced to poor management. Any decisions made without proper foresight and analysis could lead to cash-flow problems. Insufficient capital investment, improper analysis of cash requirements, poor internal controls, ineffective collection efforts, and mismanagement of resources are among the more common reasons why businesses fail. In our next issue, we'll take a look at some of the corrective actions that management can take to improve its cash flow and insure continuing profitable operations.

GLOSSARY

Cash-Flow Cycle: The process of expending cash for materials, salaries, and overhead to produce goods and services that can be sold to customers and eventually converted back into cash.

Finished Goods: Products that are available for sale—both those that are custom-produced for a specific customer, and those that are ready-for-sale to a more universal buying public.

Liquidity: The portion of a company's assets that are easily "spendable", including cash, cash-equivalent investments, and accounts receivable. When a company is rich in these types of assets (as opposed to machinery and equipment, inventory, patents, etc.) that company is characterized as being very "liquid".

Raw Materials: Goods in an unfinished state that will be manufactured or modified into a finished product for later distribution and sale.

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