1981

Handbook of small business finance (1981)

Jack Zwick

U.S. Small Business Administration
Management Assistance Division
Small Business Management Series No. 15

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A Handbook of Small Business Finance

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By Jack Zwick

U.S. Small Business Administration
Management Assistance Division
Support Services Section
Washington, D.C. 1981

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For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402
Stock No.

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About The Author

The author of this booklet is Dr. Jack Zwick, Professor of Business at George Washington University. Dr. Zwick has run his own small business and is intimately familiar with the problems and struggles of the small business owner-manager. To his qualifications, Dr. Zwick adds experience gained as a consultant to both Government agencies and business, including the banking industry. He is the Founding Director of the World Trade Institute and remains on its board.

A Handbook of Small Business Finance provides a starting point for small business owner-managers who want to sharpen their financial management skills. This booklet points out the major areas of financial management and describes a few of the many techniques that can help the small business person to understand the results of past decisions and apply this understanding in making decisions for the future.

1

What is Financial Management?

It takes money to make money. This maxim is a simple way of saying that a business must have financial resources if it is to operate profitably. If you are in retailing or wholesaling, you must keep a stock of goods on hand to sell. You need to extend credit to customers. A bank balance must be maintained for expenses such as paying suppliers and meeting payrolls. Unless you rent your place of business, funds are necessary for investments in land and buildings. If you are a manufacturer, funds are also required for equipment and machinery, for raw materials and supplies, for stocks of goods in the process of manufacture, for finished goods ready for sale.

But having money does not guarantee making money—that is, making a profit. You not only have to have money; you have to use it well. That is why financial management is important.

Financial management includes the following functions:
—Seeing that the assets of the business are used in such a way as to bring the highest possible return on the money invested.
—Evaluating the need for new assets.
—Obtaining funds to finance asset additions.
—Managing both old and new assets so that each contributes its full share toward the profitable operation of the business.
—Repaying borrowed funds from profits those funds have generated.

Getting the Financial Resources You Need

Your most important task as financial manager is to find *sources* of funds to offset the company's *uses* of funds. When a need for funds arise:
—You can increase liabilities and/or equity to match the increases in assets.
—Or you can reduce the investment in some existing asset so as to hold down the total investment in assets.

Let's assume, for example, that your business, in order to keep or expand its sales volume, needs to extend more credit to customers for longer periods of time. In other words, the investment in receivables (an asset) must be increased. You may or may not be able to increase your borrowings. That will depend, perhaps, on whether you can convince your banker that the move is a wise one and that the company's financial position is strong enough to warrant a loan. And you may or may not be able to get more equity capital to finance the receivables increase. You might decide, therefore—or be forced—to squeeze down other assets, such as bank balances or inventories, to provide the needed funds. Your job as financial manager is to decide which of these sources can and—even more important in many instances—which one should be tapped for the financial resources you need.

Making a Profit—Your Basic Obligation

A primary reason for owning and operating your own business is to make the highest possible profit for yourself. You also have responsibilities to employees, to customers, to members of the community whose lives your company influences—and these responsibilities are important. But it is you who have taken the risk of contributing capital. Your basic goal is to take care of this capital and use it as profitably as possible.

It is important, therefore, for you to have at your command a useful measure of business performance that emphasizes financial returns. There are several methods of measuring profitability, but one in particular—"return on investment"—is especially useful. Chapter 3 explains how to use this and other profitability measures.

Managing Assets

One of your most important duties as financial manager is to keep the assets of the business working hard and productively. It is easy for a small business to slip into the practice of having larger inventories, bank balances, and other investments than are really needed. "Bigger" is often equated with "better." The sales manager wants larger inventories, more lines of finished stocks, more liberal credit terms. These added investments will improve his or her sales efforts. The production manager wants newer and faster machines and tools, larger stocks of raw materials and supplies. These investments enable him or her to cut costs and meet delivery dates. The financial

manager wants larger cash balances to make his or her job easier. Office management needs new equipment. Often it seems that the opportunities to spend money are unlimited!

The aim of asset management is to make certain that new or increased assets pay their way. The added profits these new assets bring in should total more than the cost of the resources involved. The return-on-investment measure mentioned above can be used to show the expected effect on profits of an investment you may be thinking about making. Thus, it is a useful tool in judging and comparing various investment opportunities.

Often, unfortunately, opportunities that promise satisfactory returns on investment must be put aside because of lack of capital. This is especially true in small businesses, where financing new investments can be a real problem. When such a problem arises, good asset management may come to the rescue in two ways. First, it may improve a small company's chances of getting a loan by emphasizing to the lender the financial competence and alertness of the would-be borrower. Second, additional cash can sometimes be raised by reducing unnecessary investments in existing assets. That is, it may be possible to provide funds for one area of the business by avoiding or reducing their use in other areas.

The Tools of Financial Management

If your financial management is to be more than guesswork, you must have tools to work with. At the least, you need accurate, well-organized accounting records, regular financial reports, and some techniques for analyzing the reports. These tools will not give you readymade answers to your financial problems, but they will help in shaping up sound decisions based on facts and tested principles of business management.

Accounting records. Good accounting records are the foundation on which sound financial management is based. The reports with which a financial manager works can be no more accurate nor complete than the records they summarize.

Accounting records may be simple or complex, depending on the size and nature of the business, but they should be well organized and consistent. The small business that does not have such an accounting system would be wise to have a public accountant set one up and

explain its use to the person who will be responsible for maintaining it. Today several service firms have developed "time-shared", computer assisted accounting systems which simplify and speed up the process of getting good financial data on a timely basis. Many small businesses find such systems to be both economic and valuable as a planning tool. Your commercial banks can put you in touch with reputable firms in your business area so that the advisability of computerized bookkeeping can be checked out. Both time and money will be saved in the long run if you have a system.

Financial reports. There are a number of financial reports that can be helpful in financial management. The principal ones are the profit-and-loss statement and the balance sheet. These two financial statements are important to you for several reasons.

First, they are the basis for financial analysis; and as such, they are used by bankers and investors in making loan and investment decisions. If you want to enlist the support of these members of the business community, you should be able to provide the statements and to explain or defend items that appear in them.

Second, State and Federal laws pertaining to taxation and financing require reports that can be prepared only from financial statements.

Third, you should be able to read and interpret these statements as part of your management program. Only through careful financial analysis can you find and strengthen the weak spots in your financial policies and plan sound and vigorous programs for the future.

Chapter 2 explains the balance sheet and the profit-and-loss statement in more detail.

Techniques for analyzing financial statements. Various percentages and other measures of comparision have been found useful in interpreting financial statements and highlighting relations between their items. These comparative measures help to answer questions such as these:

Could the company pay its bills if business conditions tightened up temporarily? Is the money I have invested in the business bringing me as much profit as it could? If not, where are the problem areas? What percent profit could I promise an investor if he or she put some money into the business? Are my inventories working hard enough? Does the record show that the business is strong enough and stable

enough to qualify for a long-term loan? Such questions are of interest, not just to the businesspeople, but to their banker, their creditors, possible investors, and others.

Some of the most useful of the techniques for analyzing financial statements are explained and illustrated in chapter 3.

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2

Financial Statements

The two most important financial statements are the balance sheet and the profit-and-loss statement. The difference between the two is sometimes explained by comparing the balance sheet to a "still picture" and the profit-and-loss statement to a "moving picture." The balance sheet presents a financial picture of the business—its assets, liabilities, and ownership—*on a given date.* It is usually prepared as of the close of the last day of a month and answers the question, "How did we stand financially at that time?" The profit-and-loss statement (also called the income statement) measures costs and expenses against sales revenues over a definite period of time, such as a month or a year, to show the net profit or loss of the business *for the entire period.* Notice that the balance sheets shown in this chapter (exhibits 1, 2, and 3) are dated simply "December 31, 19—," but the profit-and-loss statements (exhibits 4, 5, and 7) are dated "*For the Year Ended* December 31, 19—."

The Balance Sheet

The balance sheet has two main sections. The first section (the left side if the two sections are shown side by side) shows the assets. The second (or right hand) section shows the liabilities (or debts) and the owner's equity, which together represent the claims against the assets. The total assets always equal the combined total of the liabilities and the owner's equity (or capital)—that is why this financial statement is called a balance sheet.

Assets. Anything the business owns that has money value is an asset. The assets of a small business commonly include cash, notes receivable, accounts receivable, inventories, land, buildings, machinery, equipment, and other investments. They are usually classified as current assets, fixed assets, or other assets.

—*Current assets* are cash and assets that are expected to be converted into cash during the normal operating cycle of the business

(generally, within a year). They include notes receivable, accounts receivable, marketable securities, and inventories, as well as cash. However, if inventories are not to be used up (that is, converted into accounts receivable or cash) within a year, they should be recorded as fixed assets. The same is true of notes receivable and accounts receivable that are not expected to be converted into cash within a year—they should be treated as fixed assets.

The balance sheet of a small manufacturer typically shows three types of inventories. The *materials and supplies inventory* consists of materials to be used in production, together with supplies used in connection with the processing. *Work in process*, as the name implies, consists of goods in the process of manufacture but not yet completed. *Finished goods* are merchandise completed and ready for sale. Finished goods (or merchandise) and supplies are usually the only inventory items shown on the balance sheet by small retailers and wholesalers.

—*Fixed assets* are those acquired for long-term use in the business. They include land, buildings, plant, machinery, equipment, furniture, fixtures, and so on. These assets are typically not for resale, and they are recorded on the balance sheet at their cost to the business, less depreciation.

A fixed asset is treated as a long-term cost, with the cost allocated as depreciation over the working life of the asset. Thus, the value of a fixed asset shown on the balance sheet is not necessarily the same as the resale value of the asset.

—*"Other" assets* include patents, trade investments, goodwill, and so on. (Goodwill is recorded on the balance sheet only to the extent that it has actually been purchased.)

Assets are also sometimes classified as *tangible* or *intangible*. Literally, tangible means "able to be physically touched." Current and fixed assets are normally tangible; "other" assets, typically intangible.

Liabilities. Liabilities are the claims of creditors against the assets of the business—in other words, debts owed by the business. They do not include owners' claims. Among the more common liabilities are notes payable, accounts payable, accrued liabilities, and allowance for taxes.

Exhibit 1

The MONAR Company[1]

Balance Sheet
December 31, 19__

Assets	
Current assets:	
Cash	$20,000
Accounts receivable	40,000
Inventories	45,000
Total current assets	**$105,000**
Fixed assets:	
Machinery and equipment	$20,000
Buildings	28,000
Land	12,000
Total fixed assets	**60,000**
Total assets	**$165,000**
Liabilities and Equity	
Current liabilities:	
Accounts payable	$20,000
Notes payable	30,000
Accrued liabilities	6,000
Reserve for taxes	4,000
Total current liabilities	**$60,000**
Equity:	
Capital stock	$50,000
Surplus	$55,000
Total equity	**105,000**
Total liabilities and equity	**$165,000**

[1] Not a real company.

Exhibit 2

The MONAR Company[1]

Balance Sheet
December 31, 19__

Assets		
Current assets:		
Cash		$20,000
Accounts receivable	$40,000	
Less allowance for doubtful accounts	3,000	37,000
Inventories	$45,000	
Less allowance for inventory loss	5,000	40,000
Total current assets		**$97,000**
Fixed assets:		
Machinery	$20,000	
Less allowance for depreciation	4,000	$16,000
Buildings	$28,000	
Less allowance for depreciation	6,000	22,000
Land		12,000
Total fixed assets		**50,000**
Total assets		**$147,000**
Liabilities and Equity		
Current liabilities:		
Accounts payable		$20,000
Notes payable		30,000
Accrued liabilities		6,000
Allowance for taxes		4,000
Total current liabilities		**$60,000**
Equity:		
Capital stock		$50,000
Surplus		37,000
Total equity		**87,000**
Total liabilities and equity		**$147,000**

[1] Not a real company.

Current liabilities are those due for payment within a year. *Long-term (or fixed) liabilities* are debts, or parts of debts, that are *not* due for payment within a year. The *allowance for future income taxes* represents the taxes that will have to be paid on the profits of the current year, but that are not due for payment until later. *Accrued liabilities* are similar to the allowance for future income taxes in that the expenses are charged against profits of the current year, although payment will not be made until later. The most common example is accrued wages, which must be accounted for whenever the last day of the accounting period does not coincide with the last day of a pay period.

Equity. The assets of a business minus its liabilities equal the equity. This equity is the investment of the owner or owners plus any profits that have been left to accumulate in the business (or minus any losses).

If the business is incorporated, its books will show a capital stock account. This account represents the paid-in value of the shares issued to the owners of the business. Undistributed profits are recorded in an earned-surplus account. If the business is a proprietorship or a partnership, the capital accounts appear under the name or names of the owners. Increases in equity as a result of undistributed earnings are also recorded there, as are decreases in equity if the business shows a loss instead of a profit.

Valuation accounts. Depreciation and other factors reduce the value of some assets. Because it is important to state balance-sheet values correctly, the balance sheet is usually set up in such a way as to show that provision has been made for such reductions in value. This is done by using depreciation, or valuation, accounts. Some of the more common of these accounts are the following:

—*Accounts receivable* are analyzed according to the length of time the money has been owed. An estimate is then made of what proportion of them will turn out to be uncollectable. This "allowance for bad debts" is usually computed for a given accounting period either as a percentage of the average balance of receivables or as a percentage of the net credit sales for the period. The balance sheet shows it as a deduction from the asset "accounts receivable."

—*Losses in the value of inventories* may occur as a result of price changes, style changes, physical deterioration, pilferage, and so on. If such losses are likely to occur, an estimate of possible shrinkage

Exhibit 3

Monroe Manufacturing Company [1]

Balance Sheet
December 31, 19__

Assets		
Current assets:		
Cash		$40,000
Accounts receivable	$90,000	
Less allowance for doubtful accounts	10,000	80,000
Inventories:		
Finished product	75,000	
Work in process	75,000	
Raw materials	20,000	
Supplies	10,000	180,000
Prepaid expenses		10,000
Total current assets		**$310,000**
Fixed assets:		
Furniture and fixtures	$10,000	
Less allowance for depreciation	5,000	$5,000
Machinery and equipment	$30,000	
Less allowance for depreciation	16,000	14,000
Buildings	$45,000	
Less allowance for depreciation	9,000	36,000
Land		15,000
Total fixed assets		**70,000**
Investments		20,000
Total assets		**$400,000**
Liabilities and Equity		
Current liabilities:		
Accounts payable		$40,000
Notes payable		80,000
Accrued liabilities:		
Wages and salaries payable	$4,000	
Interest payable	1,000	5,000
Allowance for taxes		
Income tax	$16,000	
State taxes	4,000	20,000
Total current liabilities		**$145,000**
Equity:		
Capital stock		$200,000
Surplus		55,000
Total equity		**255,000**
Total liabilities and equity		**$400,000**

[1] Not a real company.

should be made. This estimate appears on the balance sheet as a deduction from the value of the inventory.

—*Fixed assets,* other than land, decline in value. This decline in value may be due to wear and tear, technical obsolescence, and other causes. A periodic charge for depreciation should be made and shown on the balance sheet as a deduction from the value of the asset.

Some Examples

Exhibit 1 shows a simple balance sheet. It represents the financial position of the Monar Company,[1] a retail enterprise, on December 31, 19—. Total assets of $165,00 are offset by liabilities and equity totaling $165,000. The balance sheet balances. The assets are grouped as current assets and fixed assets (Monar has no "other assets"). Current liabilities are identified as such, although there are no long-term liabilities.

When the valuation accounts are included in the balance sheet, the statement becomes more accurate and therefore more useful. Exhibit 2 shows how they affect the asset figures that appear in exhibit 1. Note the following changes:

1. Accounts receivable have been reduced by $3,000 to an estimated $37,000, all collectible.
2. Inventory values have been reduced by $5,000 to $40,000.
3. Total current assets, therefore, show a reduction of $8,000 from $105,000 to $97,000.
4. Machinery is now valued at $16,000 or $4,000 less than the original $20,000.
5. The value of the buildings has been reduced by $6,000 to $22,000.
6. Total fixed assets have thus declined by $10,000.
7. Total assests have declined by $18,000.
8. Surplus is now $37,000 and total equity $87,000, each one $18,000 less than in exhibit 1.
9. Total liabilities and equity now balance total assets at $147,000.

The balance sheet shown in exhibit 3 has been expanded still further to make it even more useful. This is the relatively detailed statement of a typical small manufacturer.

[1] Not a real company

The Profit-and-Loss Statement—A Retailer or Wholesaler

A profit-and-loss statement of the Monar Company, whose balance sheet appears in exhibits 1 and 2 is shown in simplified form as exhibit 4. A brief explanation of the items is given here:

Sales. The item "sales" includes all sales of merchandise or services. The sales figure shown in exhibit 4 represents net sales. It is computed by subtracting sales discounts and sales returns and allowances from gross sales.

Cost of goods sold. The "cost of goods sold" is the total price paid for the products sold during the accounting period, plus in-transportation costs. Most small retail and wholesale businesses compute cost of goods sold by adding the value of the goods purchased during the accounting period to the beginning inventory, and then subtracting the value of the inventory on hand at the end of the accounting period.

Selling expenses. These are expenses incurred directly or indirectly in making sales. They include salaries of the sale force, commissions, advertising expense, out-frieght if goods are sold f.o.b. destination, and so on. Shares of rent, heat, light, power, supplies, and other expenses that contribute to the company's sales activities may also be charged to selling expense. In small businesses, however, such mixed expenses are usually charged to general expenses.

General and administrative expenses. General salaries and wages, supplies, and other operating costs necessary to the overall administration of the business are in this group of expenses.

Nonoperating income. Some small businesses receive additional income from interest, dividends, miscellaneous sales, rents, royalties, gains on sale of capital assets, and so on. In such cases, the "net profit" shown in exhibit 4 is really a net operating profit. The nonoperating income would be added to it and any interest paid subtracted. The result would then be the net profit before State and Federal income taxes.

Exhibit 5 shows, in more detail than is given in exhibit 4, a profit-and-loss statement for a small wholesale business. The retailer's statement of exhibit 4 would appear much the same if shown in similiar detail.

Exhibit 4

The MONAR Company [1]

Profit-and-Loss Statement
For the Year Ended December 31, 19___

Sales	$120,000
Cost of goods sold	70,000
Gross margin	$50,000
Selling expenses:	
Salaries	$15,000
Commission	5,000
Advertising	5,000
Total selling expenses	**25,000**
Selling margin	$25,000
Administrative expenses	10,000
Net profit	**$15,000**

[1] Not a real company.

Profit-and-Loss Statement of a Small Manufacturer

Because the small manufacturer converts raw materials into finished goods, its method of accounting for cost of goods sold differs from the method for wholesalers and retailers. As in retailing and wholesaling, computing the cost of goods sold during the accounting period involves beginning and ending inventories, and purchases made during the accounting period. But in manufacturing it involves, not only finished-goods inventories, but also raw-materials inventories, goods-in-process inventories, direct labor, and factory-overhead costs.

To avoid a long and complicated profit-and-loss statement, the cost of goods manufactured is usually reported separately. Exhibits 6 and 7 show a statement of cost of goods manufactured and a profit-and-loss statement for a typical small manufacturing company. A few of the terms used are explained below.

Raw materials are the materials that become a part of the finished product.

Direct labor is labor applied directly to the actual process of converting raw materials into finished products.

Exhibit 5

Wald Wholesale Company[1]

Profit-and-Loss Statement
For the Year Ended December 31, 19__

Net sales			**$666,720**
Cost of goods sold:			
Beginning inventory, January 1, 19__		$184,350	
Merchandise purchases	$454,920		
Freight and drayage	30,210	485,130	
Cost of goods available for sale		$669,480	
Less ending inventory, December 31, 19__		193,710	
Cost of goods sold		475,770	
Gross margin		$190,950	
Selling, administrative, and general expenses:			
Salaries and wages		$88,170	
Rent		24,390	
Light, heat, and power		8,840	
Other expenses		21,300	
State and local taxes and licenses		5,130	
Depreciation and amortization on leasehold improvements		4,140	
Repairs		2,110	
Total selling, administrative, and general expenses		154,080	
Profit from operations		$36,870	
Other income		$7,550	
Other expense		1,740	5,810
Net profit before taxes		$42,680	
Provision for income tax		15,120	
Net profit after income tax		**$27,560**	

[1] Not a real company

Exhibit 6

Hayes Manufacturing Company[1]

Statement of Cost of Goods Manufactured
For the Year Ended December 31, 19__

Work-in-process inventory, January 1, 19__		18,800
Raw materials:		
Inventory, January 1, 19__	$154,300	
Purchases	263,520	
Freight In	9,400	
Cost of materials available for use	$427,220	
Less inventory, December 31, 19__	163,120	
Cost of materials used	$264,100	
Direct labor	150,650	
Manufacturing overhead:		
Indirect labor	$23,750	
Factory heat, light, and power	89,500	
Factory supplies used	22,100	
Insurance and taxes	8,100	
Depreciation of plant and equipment	35,300	
Total manufacturing overhead	178,750	
Total manufacturing costs		593,500
Total work in process during period		$612,300
Less work-in-process inventory, December 31, 19__		42,600
Cost of goods manufactured		**$569,700**

[1] Not a real company.

Manufacturing overhead includes depreciation, light, insurance, real estate taxes, the wages of supervisors and others who do not work directly on the product, and so on—in other words, all manufacturing costs except raw materials and direct labor.

Interpreting the Profit-and-Loss Statement

Notice, in the profit-and-loss statements shown in exhibits 4, 5, and 7, that the gross *margin* (sometimes called gross profit) is computed first, and then the net profit. The gross margin equals sales less cost of

Exhibit 7

Hayes Manufacturing Company[1]

Profit-and-Loss Statement
For the Year Ended December 31, 19__

Net sales		**$669,100**
Cost of goods sold:		
Finished goods inventory, January 1, 19__		$69,200
Cost of goods manufactured (exhibit 6)		569,700
Total cost of goods available for sale		$638,900
Less finished goods inventory, Dec. 31, 19__		66,400
Cost of goods sold		572,500
Gross margin		$96,600
Selling and administrative expenses:		
Selling expenses:		
Sales salaries and commissions	$26,700	
Advertising expense	12,900	
Miscellaneous selling expense	2,100	
Total selling expenses	**$41,700**	
Administrative expenses:		
Salaries	$27,400	
Miscellaneous administrative expense	4,800	
Total administrative expenses	**32,200**	
Total selling and administrative expenses		**73,900**
Net operating profit		$22,700
Other revenue		15,300
Net profit before taxes		$38,000
Estimated income tax		12,640
Net profit after income tax		**$25,360**

sales. It does not take into account the overhead expenses (other than factory overhead) of being in business, the selling expenses, office expenses, and so on. The Hayes Manufacturing Company[1] (exhibit 7) reports a gross margin of $96,000 on net sales of $669,100. The gross-margin percentage, then, is about 14 percent. This indicates that the goods sold cost the company about $86 per $100 of sales.

The net profit of the business is the final profit after all costs and expenses for the accounting period have been deducted. The Hayes

[1] Not a real company.

Manufacturing Company made a net profit of $25,360, or about 4 percent on net sales.

Use With Caution!

The balance sheet tries to present a "true and fair picture" of the financial position of a business *at the close of* the accounting period. The profit-and-loss statement tries to present a "true and fair" picture of the results of operations *during* the accounting period. These reports, constructed according to accepted principles of accounting, are one of the small businessperson's most important tools.

But they are drawn up under conditions of uncertainty, and many of the transactions involved are necessarily incomplete at the end of the accounting period. Also, the balance sheets do not reflect resale or liquidating values; they reflect the cost, or cost less depreciation, of the assets held by the business as a going concern. The figures depend to some extent on the judgment of your accountant who has decided which accounting techniques are best suited to your business. These facts should be kept in mind in considering the techniques for analyzing financial statements discussed in the next chapter.

3

Ratio Analysis of Financial Statements

The two types of financial statements, the balance sheet and the profit-and-loss statement, are necessary—and useful. But they are only a start toward understanding where you stand, where you're going, and how you're going to get there. If you are to get your money's worth out of them (they do take time to prepare), you should study various relations between some of the figures they present.

A number of indicators have been worked out for this purpose. In many ways, these indicators or comparative measures (usually expressed as ratios) are more useful for analyzing your business operations than the dollar amounts. They provide clues for spotting trends in the direction of better or poorer performance. They also make it possible for you to compare your company's performance with the average performance of similar businesses. Some important points must be kept in mind, however.

—*Businesses are not exactly comparable.* There are different ways of computing and recording some of the items on financial statements. As a result, the figures for your business may not correspond exactly to those for the businesses with which you want to compare it.

—*Ratios are computed for specific dates.* Unless the financial statements on which they are based are prepared often, seasonal characteristics of your business may be obscured.

—*Financial statements show what has happened in the past.* An important purpose in using ratios is to obtain clues to the future so that you can prepare for the problems and opportunities that lie ahead. Since the ratios are based on past performance, you must use them in the light of your best knowledge and judgment about the future.

—The ratios are not ends in themselves, but tools that can help answer some of your financial questions. They can do this only if you interpret them with care.

Measure of Liquidity

Liquidity may be thought of simply as ability to pay your bills. It is the first objective of financial management. Measures of liquidity are intended to help you answer questions such as this:

"Do we have enough cash, plus assets that can be readily turned into cash, so that we are sure of being able to pay the debts that will fall due during this accounting period?"

The current ratio. The current ratio is one of the best known measures of financial strength. The main question it answers is this: "Does your business have enough current assets to meet its current debts—with a margin of safety for possible losses such as inventory shrinkage or uncollectable accounts?"

The current ratio is computed from the balance sheet by dividing current assets by current liabilities. For the Ajax Manufacturing Company (exhibit 8), it is computed as follows:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\$140{,}000}{\$60{,}000} = 2.3 \text{ (or 2.3 to 1).}$$

Is this a good current ratio? Should the owner of the Ajax Manufacturing Company be reasonably well satisfied with his or her firm's performance on this point? These questions can't be answered with an unqualified yes or no. A generally popular rule of thumb for the current ratio is 2 to 1, but whether a specific ratio is satisfactory depends on the nature of the business and the characteristics of its current assets and liabilities.

If you decide that your current ratio is too low, you may be able to raise it by:

Paying some debts.
Increasing your current assets from loans or other borrowing with a maturity of *more than a year.*
Converting noncurrent assets into current assets.
Increasing your current assets from new equity contributions.
Plowing back profits.

Let's take some examples. Assume that a small business has the current assets and current liabilities shown in column 1 of exhibit 9. If

this firm buys $15,000 worth of merchandise on account (column 2) inventory will be increased to $35,000 and total current assets to $65,000. At the same time, accounts payable will be increased to $35,000 and total current liabilities to $40,000. The current ratio will drop from the present 2.0 to 1.6.

Now going back to the original figures, suppose that the company, instead of buying more merchandise on account, pays bills amounting to $7,000 with cash (column 3). Current assets will then be reduced to $43,000 and current liabilities to $18,000. The current ratio will be increased to 2.4.

Working capital. In neither of the above two instances will there be any change in net working capital (the difference between current assets and current liabilities). But suppose the businessperson of exhibit 9, instead of taking either of these steps, invests an additional $10,000 in the business (column 4). This time, current liabilities will not be affected; but current assets will be increased to $60,000, the current ratio will rise to 2.4, and net working capital will be increased from $25,000 to $35,000.

Bankers look at net working capital over periods of time to determine a company's liability to weather financial crises. Loans are often tied to minimum working-capital requirements.

The acid-test ratio. The ratio, sometimes called the "quick ratio," is one of the best measures of liquidity. It is computed as follows:

$$\frac{\text{cash} + \text{Government securities} + \text{receivables}}{\text{current liabilities}}$$

For the Ajax Manufacturing Company, which has no Government securities, this becomes $70,000 divided by $60,000 (see exhibit 8), giving Ajax an acid-test ratio of 1.2 (or 1.2 to 1).

The acid-test ratio is a much more exacting measure than the current ratio. By not including inventories, it concentrates on the really liquid assets, whose values are fairly certain. It helps to answer the question: "If all sales revenues should disappear, could my business meet its current obligations with the readily convertible, 'quick' funds on hand?"

Exhibit 8

Ajax Manufacturing Company[1]

Combined Balance Sheets
January 1 and December 31, 19__

	December 31, 19__			January 1, 19__		
Assets						
Current assets:						
Cash		$30,000			$30,000	
Accounts receivable	$42,000			$32,000		
Less allowance for bad debts	2,000	40,000		2,000	30,000	
Merchandise inventory		60,000			50,000	
Prepaid expenses		10,000			10,000	
Total current assets			**$140,000**			**$120,000**
Fixed assets:						
Buildings and equipment	$120,000			$120,000		
Less accumulated depreciation	70,000	$50,000		60,000	$60,000	
Land		**30,000**			**30,000**	
Total fixed assets			80,000			90,000
Goodwill and patents			10,000			
Total assets			$230,000			$210,000

Liabilities						
Current liabilities:						
Accounts payable	$30,000			$25,000		
Accrued wages and taxes	10,000			10,000		
Estimated income taxes payable	20,000			15,000		
Total current liabilities		$60,000			$50,000	
Fixed liabilities:						
Mortgage bonds, 4 percent		40,000			40,000	
Total liabilities			**$100,000**			**$90,000**
Equity						
Common stock (5,000 shares outstanding)		$60,000			$60,000	
Retained earnings		70,000			60,000	
Total owner equity			**130,000**			**120,000**
Total liabilities and equity			**$230,000**			**$210,000**

[1] Not a real company.

Exhibit 9

Effect of Various Transactions on Current Ratio

	(1) Original current assets and current liabilities	(2) Merchandise bought on account ($15,000)	(3) Cash paid on accounts payable ($7,000)	(4) New capital invested ($10,000)
Current assets:				
Cash	$10,000	$10,000	$3,000	$20,000
Accounts receivable	20,000	20,000	20,000	20,000
Inventory	20,000	35,000	20,000	20,000
Total current assets	**$50,000**	**$65,000**	**$43,000**	**$60,000**
Current liabilities:				
Accounts payable	$20,000	$35,000	$13,000	$20,000
Other	5,000	5,000	5,000	5,000
Total current liabilities	**$25,000**	**$40,000**	**$18,000**	**$25,000**
Net working capital	$25,000	$25,000	$25,000	$35,000
Current ratio	2.0	1.6	2.4	2.4

An acid-test ratio of about 1 to 1 is considered satisfactory, subject to the following conditions:
—The pattern of accounts receivable collections should not lag much behind the schedule for paying current liabilities. In making this comparison, you should think in terms of paying creditors early enough to take advantage of discounts.
—There should not be much danger of anything happening to slow up the collection of accounts receivable.

Unless you feel comfortable about these two qualifications, you should keep your acid-test ratio somewhat higher than 1 to 1.

A general impression about the current and acid-test ratios is that the higher the ratios the better. This may be true from your creditor's point of view, because they stress prudence and safety. But it is in your interest as owner of the business to be strong and trim, rather than fat. Idle cash balances, and receivables and inventories out of proportion to your selling needs should be reduced. The key to successful financial management is to conserve the resources of your business and to *make these resources work hard for you.* Two measures that are helpful in this connection are average collection period and inventory turnover.

Average collection period. The average collection period, or number of days' sales tied up in accounts receivable, can be computed from the balance sheet and the profit-and-loss statement as follows (the figures used are from exhibits 8 and 10):

Step 1

$$\frac{\text{Net sales}}{\text{days in the accounting period}} = \frac{\$300{,}000}{365} = \$822, \text{ the average sales per day}$$

Step 2

$$\frac{\text{Receivables}}{\text{average sales per day}} = \frac{\$40{,}000}{\$822} = 49, \text{ the number of days sales tied up in receivables, or average collection period.}$$

Knowing the average collection period helps you answer this question: "How promptly are our accounts being collected, considering the credit terms we extend?" It both suggests the quality of your accounts and notes receivable and tells you how well your credit department is handling the job of collecting these accounts.

Exhibit 10

Ajax Manufacturing Company[1]

Condensed Profit-and-Loss Statement
For the Year Ended December 31, 19__

Gross sales	$303,000
Less returns and allowances	3,000
Net sales	$300,000
Cost of goods sold	180,000
Gross margin	$120,000
Operating expenses	78,000
Operating profit	$42,000
Interest expense	2,000
Income before taxes	$40,000
Estimated income tax	20,000
Net profit	**$20,000**

[1] Not a real company.

The Ajax Manufacturing Company's ratio shows 49 days of sales on the books. To put it another way, accounts are being collected, on the average, in 49 days. A rule of thumb is that the average collection period should not exceed 1⅓ times the credit terms. If Ajax offers 30 days to pay, therefore, its average collection period should be no more than 40 days. The management should look into the reasons for the slower 49-day period.

The following variations in computing the average collection period are sometimes used for greater accuracy:
—Substitute the total *credit sales* figure for the total sales figure.
—Use an *average receivables* figure. (Add receivables figures for the beginning and the end of the accounting period and divide the result by 2.)
—Compute the average collection period on a *monthly basis.* Trends toward slower collections and serious deviations from your normal collection pattern can then be spotted quickly and remedied. Also, the monthly computation keeps seasonal variations in sales and receivables from distorting the picture. For example, the average collection period of a typical retailer would be overstated if computed on the basis of its annual end-of-the-year balance sheet. At that time of year, its receivables balance is abnormally high because of sales around Christmas.

—In figuring the average sales per day, use the number of *business days* during the accounting period—say, 250 days for the year instead of 365.

Inventory turnover. Inventory turnover shows how fast your merchandise is moving. It gives you an idea of how much capital was tied up in inventory to support the company's operations at the level of the period covered.

Inventory turnover is found by dividing cost of goods sold by average inventory. The Ajax Company, with an inventory of $50,000 at the beginning of the year and an ending inventory of $60,000 (exhibit 8), computes its inventory turnover for the year as follows:

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{average inventory}} = \frac{\$180{,}000}{\frac{1}{2}(60{,}000 + 50{,}000)} = 3.3$$

This means that Ajax "turned" its inventories 3.3 times during the year—that is, it used up, through operations, merchandise totaling 3.3 times its average inventory investment.

Usually, the higher the turnover, the better. A high turnover means that your company has been able to operate with a relatively small investment in inventory. It may also suggest that your inventories are current and salable; that, since they have not been on the shelves too long, they probably contain few unusable items. But almost anything can be overemphasized, and inventory turnover is no exception. Too much attention to high turnover can lead to inventory shortages and customer dissatisfaction.

What, then, should your inventory turnover be? The desirable rate depends on your line of business, level of business activity, and method of valuing inventories, as well as on various trends. A study of the turnover rates of businesses similar to yours will help you answer the question. Past experience will also serve as a guide.

Inventory turnover is a much better guide than the absolute size of the inventories. Size can be misleading. An increase in inventories, for instance, may represent the addition of stocks to support growing sales. But it also might mean that merchandise is accumulating because sales have slowed down. In the first case, the inventory turnover remains the same or even increases; in the second case, it declines. Thus, if inventories begin to grow proportionately faster

than sales, a declining turnover rate will warn the alert small business owner-manager that trouble is brewing. If inventories are increasing for sound reasons, the turnover will remain the same or improve.

Like the average collection period, inventory turnover should be computed monthly in order to avoid distortions caused by seasonal fluctuations. Records should be cumulative and may take the form shown in exhibit 11.

Inventory turnover records for individual items, groups of products, and product lines are also helpful, especially for retailers and wholesalers. They show which items are selling well and which are slow moving. Such turnovers should be prepared monthly or, for products that are perishable or become obsolete quickly, on a perpetual or daily basis. This enables you to reorder fast-moving items in plenty of time and to prepare to dispose of slow-moving items before their value depreciates too far.

Measures of Profitability

Is your business earning as much profit as it should, considering the amount of money invested in it? This is the second major objective (after liquidity) of financial management, and a number of ratios have been devised to help you measure your company's success in achieving it. A few of them are explained here.

Asset earning power. The ratio of operating profit (earnings before interest and taxes) to total assets is the best guide for appraising the over-all earning power of your company's assets. This ratio takes no account of what proportion of the assets represents creditors' equity and what proportion represents your own equity, nor of varying tax rates. For the Ajax Manufacturing Company, it is computed as follows:

$$\frac{\text{Operating profit}}{\text{total assets}} = \frac{\$42{,}000}{\$230{,}000} = .18, \text{ or } 18 \text{ percent}$$

Return on the owner's equity. This measure shows the return you received on your own investment in the business. In computing the ratio the average equity is customarily used—the average of the 12 individual months if it is available, or the average of the figures from the beginning and ending balance sheets. For the Ajax Company, the

Exhibit 11

Inventory Turnover by Months, 19___

	Inventory on 1st of month (1)	Cost of goods sold (2)	Monthly turnover[1] (3)	Annual turnover[2] (4)
January				
February				
2 months' average				
March				
3 months' average				
November				
11 months' average				
December				
12 months' average				

[1] Column 2 divided by column 1.
[2] Column 3 times 12.

beginning and ending equity figures are $120,000 and $130,000, giving an average of $125,000. The return on the equity is then:

$$\frac{\text{Net profit}}{\text{equity}} = \frac{\$20{,}000}{\$125{,}000} = .16, \text{ or } 16 \text{ percent}$$

A similar ratio uses tangible net worth instead of equity. Tangible net worth is the equity less any intangible assets such as patents and goodwill. If there are no intangible assets, there will be no difference between the two values.

Net profit on sales. This ratio measures the difference between what your company takes in and what it spends in the process of doing business. The ratio depends mainly on two factors—operating costs and pricing policies. If your net profit on sales goes down, for instance, it might be because you have lowered prices in the hope of

increasing your total sales volume. Or it might be that your costs have been creeping up while prices remained the same.

Net profit on sales is computed as follows:

$$\frac{\text{Net profit}}{\text{Net sales}} = \frac{\$20{,}000}{\$300{,}000} = .067, \text{ Or } 6.7 \text{ percent.}$$

This means that for every dollar of sales, the company has made a profit of 6.7 cents.

This ratio is most useful when you compare your figures with those of businesses comparable to yours, or when you study the trends in your own business through several accounting periods. Comparing the net profit on sales for individual products or product lines is also useful. Such an analysis will help you decide which products or lines should be pushed.

Investment turnover. Investment turnover is the ratio of annual net sales to total investment. It measures what volume of sales you are getting for each dollar invested in assets. The Ajax Company will compute its investment turnover as follows:

$$\frac{\text{Net sales}}{\text{Total assets}} = \frac{\$300{,}000}{\$230{,}000} = 1.3$$

Return on investment (ROI). The rate of return on investment (profit divided by investment) is probably the most useful measure of profitability for the small business owner. Usage varies as to what specific items from the financial statements are to be used for "profit" and "investment." For example, "profit" might be considered to mean net operating profit, net profit before taxes, or net profit after taxes. "Investment" could mean total assets employed or equity alone. It is important to decide which of these values you are going to use in computing return on investment and then to be consistent. In this discussion, *net profit after taxes* and *total assets* will be used. For the Ajax Company, then, the return on investment is computed as follows:

$$\frac{\text{Net profit}}{\text{Total assets}} = \frac{\$20{,}000}{\$230{,}000} = .087, \text{ or } 8.7 \text{ percent}$$

Here's an illustration of the use of the return-on-investment formula: Suppose a small businessperson has a total investment of $250,000 in a toy manufacturing venture and $100,000 in a hotel. He or she wants to compare the success of these unrelated businesses. The toy manufacturing venture yields annual net profits of $55,000 and the hotel earns $25,000. The return on the toy investment is 22 percent in contrast to 25 percent for the hotel. Other things being equal, the hotel operation is more successful than the toy factory in terms of the return on investment.

Assume, now, that the next year, the businessperson wants to increase the toy sales from $500,000 to $600,000 and expects the net income of the toy business to increase from $55,000 to $66,000 as a result. In order to do this, the executive will have to increase the total investment in the toy concern from $250,000 to $350,000.

The net profit on sales will remain the same—11 percent. The return on investment, however, will drop from 22 percent to 18.8 percent. These changes are shown in the following summary of the toy manufacturing operations:

	Original	*Expanded*
Investment	$250,000	$350,000
Sales	$500,000	$600,000
Net profit	$55,000	$66,000
Net profit on sales (percent)	11.0	11.0
Return on investment (percent)	22.0	18.8
Investment turnover (times)	2.0	1.7

Why did the rate of return on investment drop from 22.0 to 18.8 percent, when the rate of return on sales remained at 11 percent? The answer is found in the investment turnover. A company's net profit on sales may be high; but if the sales volume is low *for the capital invested*, the rate of return on the investment may be low. While the toy manufacturer's profit on sales remained at 11 percent, its investment turnover was only 1.7 the second year compared to 2.0 for the first year. As a result, the return on investment dropped from 22.0 percent to 18.8 percent. On the other hand, the profit on sales can be low and still bring a high return on investment if it is coupled with a high investment turnover.

The toy manufacturing illustration shows why it is important to look at return on investment in addition to sales volume, profit on sales, and absolute profit figures. The investment required to produce

the sales and profits are important. The entire triangle of factors—sales, profits, and investment—must be considered in financial management.

Common-Size Financial Statements

Sometimes all values on the financial statements are reduced to percentages. Balance-sheet items are usually expressed as percentages of the total assets figure; profit-and-loss statement items, as percentages of net sales. A statement in this form is often called a "common-size" balance sheet or profit-and-loss statement.

This type of analysis has little or no value, however, unless the percentages are compared with figures for other businesses in the same line of activity or with past records of your own company.

Using the Ratios

Ratios will not provide you with any automatic solutions to your financial problems. They are only tools—though important ones—for measuring the performance of your business. It is the use to which you put them that will determine their real value. Chapter 9 lists a number of sources that publish average ratios for various types of businesses. Compare your ratios with the averages of businesses similiar to yours. Also, compare your own ratios for several successive years, watching especially for any unfavorable trends that may be starting.

If warning signs appear, look for the causes and for possible remedies. Studying one ratio in relation to others may help here, but you will probably also need to look into the more detailed records of your business in the areas concerned.

4

Looking Ahead

As your business grows, there will probably be times when you will need additional funds for investment or operations. You must be able to plan for these requirements, and to do this you will need forecasting tools.

The techniques described in this chapter—the cash budget and projected financial statements (sometimes called "pro forma" statements)—serve many purposes. They help you to keep last-minute decisions and surprises at a minimum, to set standards of performance for various activities of your business, to anticipate financial needs and the effects of policy changes. They are a valuable aid in discussions with prospective lenders. They help you answer such questions as these:

Will I need additional money?
When will I need it?
How long will I need it?
How much do I need?
Where can I get it?
How much will it cost?
If I borrow it, how can I repay it?

The Cash Budget

The cash budget is simply a plan for cash receipts and expenditures during a given period. It is one of the most valuable financial tools at your disposal. By figuring out your cash needs and cash resources ahead of time, you put yourself in a better position to:

Take advantage of money-saving opportunities such as economic order quantities, cash discounts, and so on.

Make the most efficient use of cash.
Finance your seasonal business needs.
Develop a sound borrowing program.

Develop a workable program of debt repayment.
Provide funds for expansion.
Plan for the investment of surplus cash.

How to do it. The length of the period to be covered by the cash budget depends on the nature of your business, how ample your supply of cash is, and how regularly cash flows into and out of your business. The form shown in exhibit 12 (pages XX and XX) is for a simple cash budget prepared monthly.

The groundwork for preparing a cash budget consists of estimating all cash receipts and cash payments expected during the budget period. Budgets must be carefully planned for cash sales (including discounts and sales returns and allowances), payments of accounts receivable, and any other expected cash income. The same kind of planning must be done for each type of expense that will go to make up the expected cash expenditures. These budgets are based on experience and on the goals you have set for your business.

If expected cash receipts total more than expected cash payments, the difference is added to the expected cash balance at the beginning of the period. If payments total more than receipts, the difference is subtracted. In either case, the result is the expected cash balance at the end of the period.

The cash balance—how much is enough? You must also decide what size cash balance you need to maintain. This, too, is based on experience. You might, for instance, decide that cash equivalent to a certain number of days' sales is a desirable level. If the cash balance at the end of the budgeted period is less than this amount, some short-term borrowing or changes in plans may be necessary. The cash budget, by bringing this to your attention early, gives you time to consider fully all the possible courses of action.

If, on the other hand, the cash balance is larger than you need, the excess can be temporarily invested in marketable securities.

If you need funds—what kind? Cash budgets can help you decide whether you need short-term or long-term capital. A series of 12 monthly cash budgets will show your estimated monthly cash balances for a year. Each of these balances can then be compared with the cash level you have established as desirable for your business. Perhaps your cash balance is ample at the beginning and end of the 12-month period but low at times during the year. This suggests a

need for short-term funds. The need will be self-liquidating over the 12-month period.

If, however, cash budgets are developed over longer periods of time and the cash balance is consistantly low, the business needs intermediate or long-term capital—intermediate if the need persists for periods lasting from 12 to 30 months, and long-term or permanent capital if it persists for a longer period.

Projected Financial Statements

The cash budget deals with only one account—cash. It is useful to carry your plans for the future a step further by drawing up a profit-and-loss statement and a balance sheet. These statements record your best estimates of what the profitability of your business will be during the period covered and the financial condition of the business at the end of the period. They should be drawn up at least quarterly; and if your business is short of funds, you would be wise to prepare them more often. They will help you avoid unforeseen peak needs that might prove embarrassing.

By providing a look into the future of your business, projected financial statements enable you to judge what the financial needs of your business will be at the end of the forecast period. You can then plan ahead of time whatever steps may be needed to strengthen the business or to prepare for future growth. If you wait until the need actually arises, it will be more difficult and may even be too late.

The projected profit-and-loss statement. The value of the projected profit-and-loss statement as a guide depends largely on your estimate of sales during the period for which the projection is being made. It is therefore well worth your time to develop this estimate as accurately as possible. Use the past experience of the business, figures provided by salespeople, management projections, and any other useful information.

Next, the cost of goods sold must be estimated. A useful first step is to analyze operating data to find out what percentage of sales has gone into cost of goods sold in the past. This percentage can then be adjusted for expected variations in costs, price trends, and efficiency of operations. (A more detailed method estimates each cost item separately and totals the results.)

Exhibit 12

Cash Budget

For Three Months Ending March 31, 19__

	January		February		March	
	Budget	Actual	Budget	Actual	Budget	Actual
Expected cash receipts:						
1. Cash sales						
2. Collections on accounts receivables						
3. Other income						
4. Total cash receipts						
Expected cash payments:						
5. Raw materials (or merchandise)						
6. Payroll						
7. Other direct factory expenses						
8. Advertising						
9. Selling expense						
10. Administrative expense						
11. Plant and equipment						
12. Other payments (taxes, interest, and so on)						
13. Total cash payments						

14. Expected cash balance at beginning of month						
15. Cash increase or decrease (item 4 minus item 13)						
16. Expected cash balance at end of month (item 14 plus item 15)						
17. Desired cash balance						
18. Short-term loans needed (item 17 minus item 16 if item 17 is larger)						
19. Cash available for short-term investment (item 16 minus item 17 if item 16 is larger)						

Other expenses, other income, and taxes can also be estimated on the basis of past experience and expected changes.

A typical projected profit-and-loss statement for the Titan Manufacturing Company is shown in exhibit 13 (page XX).

The projected balance sheet. The projected balance sheet is a summary of the results expected at the end of the period for which the projection is being made. It shows the effect on each balance-sheet item of the sources and uses of funds planned in the various budgets.

The *cash* figure appearing on the projected balance sheet (see exhibit 14 on pages 38 and 39) is the amount decided on as the desirable cash balance in the cash budget. The Titan Company has established 15 days' sales as their desired cash balance. On the basis of the sales estimate of $80,000 for December (exhibit 13), the cash account would be $40,000 on their projected balance sheet.

The *receivables* and *inventory* accounts can be based on past experience and estimated sales. Assume that Titan's receivables have averaged 30 days' sales in the past, and that inventories have been turning roughly one-half times monthly. If other conditions and policies do not change, with Titan's sales estimate of $80,000, receivables should be about $80,000 and inventory $160,000 at the end of the month.

Fixed assets on the estimated balance sheet are based on earlier fixed-asset accounts. That is, the accounts on the most recent balance sheet are adjusted for depreciation and expected additions to or reduction in these assets.

Accrued liabilities and *long-term debts* can usually be assumed to remain unchanged. Of course, if your experience has been that accrued liabilities tend to vary with sales volume, you should take this into account. Any expected increase or reduction in long-term debts during the period should also be given effect.

The *accounts payable* figure is based on an estimate of the number of days' purchases that will be outstanding at the end of the month. Recent and expected purchases and your creditors' terms of sale must be considered.

The equity account consists of the existing ownership account plus the earnings to be retained during the period. The amount of re-

Exhibit 13

Titan Manufacturing Company[1]

Projected Profit-and-Loss Statement
for the Month Ending December 31, 19__

			Figures based on:
Revenue from sales		$80,000	Sales budget for the month
Cost of sales		56,000	Experience (for Titan, 70 percent of sales)
Gross margin		$24,000	
Operating expenses:			
Selling expenses	$10,200		Budget for the month
General expenses	4,000		Experience (for Titan, $2,400 fixed costs plus variable costs of 2 percent of sales)
Total operating expenses		14,200	
Net income from operations		$9,800	
Other expense:			
Interest expense		500	Outstanding debt
Net profit before taxes		$9,300	
Income taxes		2,790	Tax rate of 30 percent
Net profit after taxes		$6,510	
Earnings withdrawn		5,000	Owner's intention
Retained earnings		$1,510	

[1] Not a real company.

Exhibit 14

Titan Manufacturing Company[1]

Projected Balance Sheet
December 31, 19__

Current assets:		
Cash	$40,000	Desired cash balance equal to 15 days' sales
Accounts receivable	80,000	Average collection period of 30 days' sales
Inventory	160,000	Monthly turnover of ½ during this season
Total current assets	**$280,000**	
Fixed assets	500,000	Present figure adjusted for months' depreciation.
Total assets	**$780,000**	
Liabilities		
Current liabilities:		
Notes payable	$69,000	Amount of borrowed funds needed to balance assets
Accounts payable	76,000	Expectation of 60 days' purchases on the books
Accrued liabilities	11,000	Same as preceding period
Total current liabilities	$156,000	
Long-term debt	70,000	Unchanged
Total liabilities	$226,000	
Equity		
Paid-in capital	$350,000	Unchanged
Retained earnings	204,000	Present amount plus earnings to be retained in Dec.
Total equity	554,000	
Total liabilities and equity	**$780,000**	

[1] Not a real company.

tained earnings to be added here comes from the projected income statement. The remaining account, *notes payable*, is the last to be computed (unless it has already been determined in connection with the cash budget). Notice that without it, the combined equity and liabilities ($711,000) fall $69,000 short of the total assets ($780,000). This indicate that if the estimates used were reasonably accurate, Titan will need roughly $69,000 of borrowed funds to finance the activities planned.

Points to remember. Bear in mind two characteristics of projected financial statements. *First*, these statements can be built up in a number of ways. The best approach is to rely on whatever information is fairly easy to get together and enables you to make the most accurate estimates for the various accounts. *Second*, remember that these statements are based on estimates and assumptions. They provide only a rough sketch of what may happen.

If actual performance differs widely from the estimates at any point, however, the reason should be sought. Was the estimate unrealistic, or were there weaknesses in your company's performance at that point? Whichever proves to be the case, the trouble spot should be attended to.

Looking Still Further Ahead

You may find it hard to estimate capital requirements in the more distant future by developing projected cash budgets and financial statements. Business expectations 24 months ahead, for instance, may be too uncertain for detailed schedules to be pieced together.

In such cases, ask yourself this question: "Do I expect to do the same volume of business 2 years from now, or do I expect to do x percent more business?" When you have the answer to that question, you can make a rough estimate of your capital requirements for the period. Here's how.

Examine past financial statements to find the normal cash, inventory, accounts receivable, accounts payable, and short-term borrowing *per dollar of sales*. Then multiply these amounts by the dollar sales volume you expect to be doing in 2 years. Add to existing fixed assets any additions you expect to make during the 2 years.

You are now well on your way to constructing a rough projected balance sheet for that time. A concluding step is to subtract total estimated liabilities from total estimated assets. The difference is the projected equity account.

Now compare this account with your existing equity account. The difference between the two will have to be made up by retained earnings plus growth capital.

5

The Different Types of Financing

In this chapter we will discuss distinctions among the three different types of financing: (1) equity capital, (2) working capital, and (3) growth capital. This distinction is important since you must first know the exact nature of what it is you need in order to obtain adequate financing.

Equity capital is the cornerstone in the financial structure of any company. As suggested in chapter 2, equity is technically that part of the balance sheet which reflects ownership of the company. It also represents the total value of the business since all other financing amounts to some form of borrowing which must ultimately be repaid. When a lending officer asks the question "What do you have in the business?" he is asking about your equity. Equity capital is not generally obtainable from institutions—at least not during the early stages of business growth. By way of distinction, working capital and growth capital can be obtained in a number of ways. Both become necessary when equity capital has been used to the limit of its availability. The working capital and growth capital extend the effectiveness of equity by providing the leverage on investment present in the financial picture of most successful businesses.

Working capital needs arise as a result of the ongoing activities of the business. Funds are required to carry accounts receivable, to obtain inventories, and to meet payroll. It is to satisfy such needs that working capital is required. In most businesses the magnitude of these needs vary during the year and it is the varying use of more or less money to finance these requirements during the business cycle which most quickly identifies this funding requirement as working capital.

Growth capital, although frequently grouped together with working capital, is different in that this funding source is not directly related

to the cyclical aspects of the business. Instead, growth capital is usually involved when the business is expanding or being altered in some significant way. Usually the change in the business can be expected to result in higher levels of general profitability and cash flow, and it is because of this change that various types of growth capital can be arranged. Rather than looking for seasonal liquidity or reducing this type of borrowing as in the case of working capital, lenders which make growth capital available frequently depend on increased profits to provide orderly repayment of such loans over a longer period of time.

The need for the presence of all three types of capital—equity capital, working capital, and growth capital—continues in every growing business. You should not expect a single financing program maintained for a short period of time to eliminate every future need.

As prospective suppliers of financing begin to analyze the requirements of your business, they will begin to distinguish among the three functional types of capital in the following way: (1) fluctuating (working capital), (2) amortizing (growth capital), and (3) permanent (equity capital).

If you are asking for a *working capital* loan, you will be expected to show how the loan can be reduced during your business's period of greatest liquidity during the business cycle or over a 1-year period. If you seek *growth capital,* you will be expected to show how these moneys will be used to make your business more profitable and generate extra cash which can be used to repay the loan over several years.

If, on the other hand, you are not asking for either working or growth capital, it is likely that a lender will say to you "we would like to be of assistance but we cannot invest in your business—this is the role of equity capital and we only make loans." This is a natural and quite logical response for a bank cannot be expected to become "locked in" with its money obtained from depositors as would a stockholder or a private investor whose moneys are placed at risk for dividend return or future capital gains.

With this background in mind, we can now begin to explore the various types of working capital loans and the sources which make this type of financing available to small businesses.

The Small Business Administration (SBA) is an independent agency of the Federal Government, established by Congress to advise and help the Nation's small businesses. Its major areas of activity are:

—Serving as advocate for small business within the Federal Government.
—Providing management assistance and encouraging private sector financing of small business.
—Promoting business development and capital ownership among minorities and women.
—Helping small business get a fair share of Government procurement contracts and subcontracts.

SBA Loans

If borrowing does appear to be necessary or advisable, and if no private source can be found, SBA can quarantee up to 90% of a local bank loan. However, by law, SBA cannot consider a loan application unless there is evidence that the loan could not be obtained elsewhere on reasonable terms without SBA assistance.

SBICs and Other Venture Capital Sources

Small Business Investment Companies (SBI's) are licensed and financed by the Small Business Administration (SBA) for the purpose of providing venture capital to small business concerns. This capital may be in the form of secured and/or unsecured loans, debt securities with equity characteristics, or "pure" equity securities which are represented by common and preferred stock.

Venture capital is extremely difficult to define; however, it is characterized as being high risk with the principal objective of capital gains. The structure and terms of the financing are responsive to the needs of the small business rather than to the requirements of the venture investors. Additionally, and probably more importantly, venture capital is characterized by a continuing active relationship between the small business and the venture capitalist.

When to Turn to Venture Capitalists

If your business requires additional equity capital and if internally available moneys are simply inadequate, some form of venture capital participation may make sense. Venture capitalists will expect a

relatively high percentage of ownership in your company for a given amount of money initially invested in the business. At the same time these financiers may provide invaluable assistance in lining up additional outside financing, marketing and product ideas, and general management consulting.

It is important for you to recognize that you are taking on a partner who will maintain an active interest in your business and its direction when you become involved with venture capitalists. They can provide guidance and open many doors, and they are generally patient and sympathetic to the problems associated with building a small business. They are usually prepared to wait longer than the average investor for profits to arrive so long as you are conscientiously pursuing your objectives. Most venture capitalists expect a 15 percent rate of return on their investment or higher and expect to see profits within a five to seven year period.

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Unsecured Borrowings for Working Capital

Chapter 3 defined working capital as the difference between current assets and current liabilities. To the extent that your working cash balances, cash accounts receivable, and inventories exceed trade credit—the gap must be financed. The simplest means of obtaining this working capital is by borrowing on an unsecured basis. Commercial banks are the largest source of this type of financing which has the following basic characteristics: (1) the loans are short term but renewable, (2) they fluctuate according to seasonal needs or follow a fixed schedule of reduction or amortization, (3) the loans call for periodical repayment, (4) they have no lien on any assets of the borrower, (5) they usually require that all indebtedness of the borrowing company to its principals be subordinated, (6) they have no priority over any common creditor of the borrower, and (7) they are granted primarily in ratio to the net current assets (working capital) position of the borrower.

Commercial banks usually prefer unsecured loans even though they do not include liens. This is because the loans are least costly to handle and administer. At the same time the banks grant unsecured credit only when they feel that the general liquidity and overall financial strength of your business relative to the size of the credit provide ample ability for repayment.

You may be able to predict that you require working capital financing for a specified interval, say 3 to 5 months, in which case the bank can issue a credit with that specific term. Most likely, however, your working capital need will continue over the cyclical growth pattern of your business. As suggested in the previous chapter, the usual function of working capital is to supplement the role of equity in connection with fluctuating needs over a period of the business cycle. Therefore, most unsecured credits are established on a year's basis and set up on the bank records as such. Despite the fact that a 1-year credit is established, the bank is likely to continue

handling the transaction with a series of renewable 90-day notes. Theoretically, at 90-day intervals the bank will reappraise the credit situation and can conceivably call your note asking for repayment in full. In actual practice the bank is likely to feel that it has screened the credit sufficiently carefully in the beginning to review only once a year. Therefore, the 90-day maturity date is only a technicality; however, you must handle it properly by paying it off in cash on or before due date or, usually, "paying by renewal."

Although most unsecured loans fall into the category just described—that is, the 1-year line of credit consisting of a series of renewable 90-day notes—there is another type of working capital loan which is also frequently used. This is the amortizing loan which calls for a fixed program of reduction usually on a monthly or quarterly basis. If you borrow for working capital purposes on an amortizing basis, your bank is likely to agree to terms longer than a year so long as you comply with the schedule of stipulated principal reductions.

There is an important feature to the types of borrowing arrangements described above. Namely, while a loan commitment from a bank for working capital can only be negotiated for a relatively short term, after satisfactory performance during that term the arrangement can be continued indefinitely on the assumption that a good business relationship exists between you and your bank and that your creditworthiness has not been impaired.

"The Annual Clean-Up"

Once a year the bank will expect you to pay off your unsecured borrowings for perhaps 30 or 60 days and this is what is known as "*the annual clean-up.*" This clean-up occurs during the period of greatest liquidity during the year when it is possible for your indebtedness to be at its lowest level. This normally occurs following a seasonal sales peak when inventories have been reduced and receivables are largely collected from customers prior to the beginning of a new business buildup.

You may discover that it becomes progressively more difficult to repay debt or "clean-up" and this condition usually occurs due to the following reasons: (1) your business is growing to the extent that this year's period of least activity represents a considerable increase over the corresponding period of the previous year, (2) you are increasing your immediate short-term capital requirement because of some new

promotional program or addition to operations, or (3) you are experiencing a reduction in profitability and cash flow which, hopefully, is temporary in nature.

Frequently, such a condition will justify a combination of both open line "self-liquidating" financing and the amortizing type of unsecured borrowing. For example, you might try to arrange a combination of perhaps $15,000 of open line credit to handle peak financial requirements during the business cycle and at the same time $20,000 of amortizing unsecured borrowings to be repaid at a rate of say $4,000 per quarter. In appraising such a request for combination of unsecured loans, your commercial bank, if it is on its toes, will insist on an explanation based on past experience and future projection for both: (1) how the $15,000 of open line credit will be self-liquidating during the year with ample room for the annual clean-up and (2) how, as a result of increased profits and resulting cash flows, you can be expected to meet the schedule of amortization on the $20,000 portion.

Since unsecured loans provide no prior claim or lien on assets to the lender, you have to provide ample assurances as to liquidity and to overall financial health to qualify for this type of financing. Credit acceptability is usually based on the following: (1) debt-to-worth ratio and (2) net current asset position. In many instances debt-to-worth ratios of 2 to 1 or even 3 to 1 are quite acceptable. Beyond that limit, however, other financing techniques may have to be used. With regard to your net current asset position, banks normally limit their unsecured open lines to 40 percent or 50 percent of working capital, sometimes going a little higher to allow for seasonal peaks. Still other banks in appraising the suitability of an unsecured line focus on the current ratio as a rough index of liquidity and for most types of businesses an acceptable current ratio is 1.5 to 1.

Putting Your Best Foot Forward

It is important to present your company's case persuasively to the bank if you are to succeed in obtaining unsecured credit lines. You should have a financial plan which contains a cash budget for the next 12 months as well as a pro forma balance sheet and income statement. You should be prepared to explain fully how these statements have been prepared and the underlying assumptions on which the figures are based. Obviously, these assumptions should be supportable. One final reminder. Many banks prefer that statements be prepared by an outside accountant and submitted on his or her sta-

tionery. Perhaps it is sometimes unjustified, but the outside accountant or financial advisor frequently has additional credibility as the result of professional experience with financial matters and familiarity with many businesses. Only you can judge whether the assistance of an outsider will be useful in negotiations with your commercial banker.

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Secured Working Capital Financing

Your company may have reached the point where it is ineligible for additional unsecured borrowing arrangements with a commercial bank. This may be because your bank has reached its lending limit or takes the view that additional unsecured credit cannot be extended.

Under the circumstances it may be possible to arrange for your bank to participate with a commercial finance company in offering a secured credit which may result in a more advantageous interest rate than would be obtainable with a straightforward secured lending program.

The principal distinction between unsecured lending discussed in the previous chapter and secured borrowing is the existence of a lien—that is, a prior claim on specific assets given by the borrower to the lender. Under the Uniform Commercial Code which has been adopted by all 50 States, all classes of liens today are now lumped together under the term "security interests" which forms the basis for a security agreement. The presence of the lien means that common creditors and trade suppliers cannot look to the value of certain assets for repayment except subject to the claims of lienholding lenders.

Accounts Receivable Financing

The most common form of secured financing involves liens against accounts receivable. This type of financing is offered both by commercial banks and commercial finance companies. While distinctions are made by lenders among industry and individual firms, advances can usually be obtained amounting from 70 percent to 90 percent of outstanding quality receivables. Usually an "open limit" is established which permits the amount of financing to fluctuate as your receivable portfolio grows or declines.

Although the stated interest charge may be higher than for unsecured bank borrowings, the actual money cost differential between secured and unsecured borrowing may not be so high as it initially appears. This is due to the fact that secured borrowing costs are usually calculated based on actual cash used by the borrower on a daily basis and interest charges computed in this fashion may prove more moderate in comparison with unsecured borrowing costs which usually involve compensating balance requirements and other costs not included in the stated interest rates.

Factoring

As noted, accounts receivable financing involves borrowing with your accounts receivable as collateral. In factoring, unlike accounts receivable financing, the receivables are actually purchased by the factor without recourse. This non-recourse arrangement is normally limited, however, to the credit risk and the factor is protected against circumstances which would invalidate sales. Factoring is logical when it makes sense for outside parties to assume the responsibility for follow-up and collection. Traditionally, factors are used in industries where they have better firsthand knowledge of customers and their creditworthiness than do the sellers and where as a consequence, they can be more effective in converting the accounts receivable into cash.

Secured working capital financing can also be obtained by *pledging inventories.* In some instances inventories are stored in public warehouses where disinterested third parties having no affiliation with the borrower can provide protection for the associated lenders. A variation used by many companies for inventory financing involves field warehousing in which a clearly delineated area is set aside on the premises of the buyer enabling a disinterested third party to take full responsibility for the inventory against which credits are extended. Depending on the nature of your business and conditions in your industry, it may be possible to obtain a 60 percent to 75 percent advance with inventory as a lien.

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Secured Growth Capital Financing

Lenders assume that working capital loans—whether extended on a secured or an unsecured basis—will be repaid through the automatic liquidation of receivables and inventories during the course of the business cycle. Thus, it is the inherent liquidity of the business rather than overall profitability which supports such borrowing programs. By the way of contrast growth capital loans are extended for longer periods of time and are repaid from profits rising from business activities extending several years into the future. It is logical, therefore, that growth capital loans are secured by collateral which remains unchanged in the possession of the borrower; that is, the noncurrent of fixed assets such as machinery and equipment.

In working capital financing primary credit emphasis is placed on the quality of collateral. For growth capital lending stress will be placed on underlying rationale for the borrowing. In other words, you will need to demonstrate that growth capital can be used to increase cash flows or sources of payment through increased sales, cost savings, or greater production efficiencies. Although your building, equipment, or machinery will probably be the collateral for growth capital borrowing, the use of the funds is not necessarily restricted to purchase of additional equipment. Any general business purpose is eligible so long as it promises possibilities of success.

Although you may wish to borrow to acquire a specific piece of new equipment if substantial amounts of growth capital are involved, the lender is likely to insist that all machinery and equipment of the business be pledged and the percentage of the advance is likely to range somewhere between 25 percent and 57 percent of the equipments' book value.

Leasing

For a particular piece of new equipment it may be possible to arrange a lease in which case you will not actually own the equipment

but, rather, enter into an arrangement where your firm obtains exclusive use of it over a specified number of years. Such an arrangement may have possible tax advantages besides releasing funds which would otherwise be tied up in ownership of the equipment.

Conditional Sales Purchases

Still another variation involves purchasing equipment on a time payment basis. Naturally, the ownership of the property under such an arrangement is retained by the seller until the buyer has made all the required monthly or quarterly payments over the term of the contract.

Sale Leasebacks

Most purchased leases involve new equipment. It is sometimes possible to sell equipment which your business owns to a leasing company and then lease it back. It may be possible under such an arrangement to obtain an advance equal to or larger than what could be obtained through a conventional mortgage arrangement.

Pulling the Various Elements Together

Many business situations are best financed by a combination of the various types of credit arrangements described earlier. For example, your business may qualify for secured bank credit extended on a regular 90-day renewable basis so long as it is possible to "clean-up" or "rest" the line annually. If the short-term, liquidating facet of your financial requirement is separated from the longer-term components, this may indeed be possible. The longer-term components are more likely to be accommodated by some form or combination of types of secured financing. Receivables financing and warehouse lending may be possibilities and these, in turn, may be supplemented by chattel mortgage borrowing or one of the other forms of borrowing against fixed assets. Commercial finance companies are well qualified to help you develop a proper solution in the use of secured financing options together with unsecured borrowings.

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For Further Information

This booklet has described several concepts and tools of financial analysis that can help the small business owner-manager interpret financial data and manage the operations of his business. But it is important to remember that understanding and applying these tools successfully requires more than a knowledge of how the tools work. It is also essential to understand when the tools should be used and, more important, what their strengths and limitations are.

Financial analysis cannot be carried out in a routine, standardized way. You must be able to tailor the concepts and tools to the specific requirements of your business. You must ask yourself, "What questions need to be asked about my business?" and then, "What approach shall I use to get practical answers to these questions?"

Before analyzing a financial problem, ask yourself these questions:
"What factors, trends, relations, and time periods have a bearing on the problem?"
"What tool or method of analysis will be most useful?"
"How much detail work is justified?"

The amount of literature in the field of business finance is vast. Some of the information is not applicable to the finance problems of small businesses. Much of it is, however, and some of it is designed especially for small business.

The following lists may be useful to small business owner-managers who wish to study the subject of business finance further. The lists are necessarily brief. No slight is intended toward authors and sources not included.

Sources of Industry Ratio Data

Among the best known sources of industry ratio data with which to compare your own ratios are the following:

Key Business Ratios. Published annually by Dun and Bradstreet, Inc., 99 Church St., New York, NY 10007.
Covers 125 lines of business activity, including manufacturing, wholesaling, retailing, and construction industries.

Statement Studies. Published annually by Robert Morris Associates, National Association of Bank Loan Officers and Credit Men, Philadelphia National Bank Building, Philadelphia, PA 19107.
Based on data collected from member banks of the association. Covers approximately 300 lines of business.

Specialized Industry Reports. There are many sources of ratio data specializing in single industries or industry groups. These sources include trade associations, specialized accounting firms, trade magazines, universities, some larger industrial corporations, and several Governmental agencies. A number of them are listed in the booklet *Ratio Analysis for Small Business* (see below, under "U.S. Publications"). This booklet also has more detailed information about the publications whose specific titles are mentioned above.

U.S. Government Publications

—The following publications may be purchased from the Superintendent of Documents, Washington, D.C. 20402. Write for current price and availability.

Cost Accounting for Small Manufacturers (SBMS No. 9). U.S. Small Business Administration.

Ratio Analysis for Small Business (SBMS No. 20). U.S. Small Business Administration.

Guides for Profit Planning (SBMS No. 25). U.S. Small Business Administration.

Financial Control by Time-Absorption Analysis (SBMS No. 37). U.S. Small Business Administration.

Buying and Selling a Small Business (Nonseries). U.S. Small Business Administration.

Books

Entrepreneurship and Venture Management. Clifford M. Baumback. 1975. Prentice-Hall, Inc., Englewood Cliffs, NJ 07632.

Guide to Buying or Selling a Business. James M. Hansen. 1975. Prentice-Hall, Inc., Englewood Cliffs, NJ 07632.

How to Run a Small Business. J. K. Lasser Tax Institute. 1974. McGraw-Hill Book Company, Inc., 1221 Avenue of the Americas, New York, NY 10020.

Small Business Management Fundamentals. Dan Steinhoff. 1974. McGraw-Hill Book Company, Inc., 1221 Avenue of the Americas, New York, NY 10020.

How to Start Your Own Business. William D. Putt. 1974. MIT Press, 28 Carleton St., Cambridge, MA 02142.

Guide to Venture Capital Sources. Stanley M. Rubel. 1977. Capital Publishing Corp., Two Laurel Ave., Wellesley Hills, MA 02181.

Handbook for Manufacturing Entrepreneurs. Robert S. Morrison. 1973, Western Reserve Press, Inc., Box 675, Ashtabula, O 44004.

U. S. GOVERNMENT PRINTING OFFICE : 1981 O - 352-170

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For addresses and telephone numbers of the field offices listed above, consult the appropriate telephone directory.