

## Chapter 15

# Capitalization and Financial Projections



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### Objectives

- 15-1** Explain the process of determining the capitalization needs of a new business.
- 15-2** Describe how to put together the various financial statements that comprise a financial plan.
- 15-3** Discuss the financial records every entrepreneur should maintain.

## WHAT IS CAPITALIZATION?

The biggest obstacle for many entrepreneurs is initial capitalization.

**Capitalization** is the activity of obtaining all the capital assets necessary to operate a business. **Capital assets** include all the equipment, inventory, and operating resources (including cash) that the business owns and uses in its operations. The challenge for the new business owner is determining where to obtain the money to purchase and/or lease the items needed to start a business—the initial capitalization. As noted in Chapter 14, more often than not there is a deficit between the financial resources that are needed and the financial resources that are on hand. In this chapter we will examine more closely putting the initial capitalization plan together and projecting the future financial needs of a business operation.



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## The Total Financial Package

Before you can complete your business plan, you need to ask yourself how much money you need for the type of business you are considering. The path to the answer starts with your personal financial objective. How much income will you need for personal living expenses? What is the minimum profit you consider adequate? Personal rent or mortgage expenses, car payments, utility bills, groceries, and so on must be covered whether you are employed or self-employed.

Write an objective statement outlining your expenses and the minimum profit you require. Whether the objective is \$5,000 per year for a part-time business or \$100,000 for a heavily invested enterprise, you will use this financial objective statement to direct your business plan.

Your minimum profit figure will dictate the amount of capital you will need to achieve your objective. For example, if your objective is to make \$25,000 per year, you must design the financial or capitalization plan to ensure that enough capital assets are purchased or leased to achieve the sales volume that will ensure a \$25,000 net profit. **Net profit** is the income left over after all expenses, including taxes, are paid. If you need to make sales worth \$150,000 to net \$25,000, you must purchase whatever inventory, equipment, and other capital assets are required to ensure sales revenues of \$150,000. Many entrepreneurs do not develop a realistic plan of investment to earn the needed profits. When they cannot obtain the resources to meet the business's objective, the business is considered **undercapitalized**.





## Ethics for **ENTREPRENEURS**

There is a tendency among many entrepreneurs to overstate their profits when they apply for a small business loan. By making the business look more profitable than it is, they are hoping that bankers will be more willing to make a loan. Most bankers, however, have ways of validating the accuracy of an income statement. They can check industry sources regarding expected profits from businesses of a particular size, request copies of the borrower's income tax and sales tax forms, or request audited financial statements from a certified public accounting firm.

### Think Critically

1. What would be the future ramifications for an entrepreneur who uses deceitful financial statements to apply for a business loan?
2. Can you think of other ways a lending institution can validate financial statements?

## Initial Capital Needs

Calculating initial capital needs begins with a sales projection. As an example, take an entrepreneurial couple, Dorothy and Bill, and their new store, The Emporium—Decorative Gifts for the Home. Their first-year objective is to make a \$25,000 profit selling retail products with an average markup of 50

percent. They hope to make more than that eventually, but \$25,000 is what they will need to meet all their personal obligations during the first year of operation. They need a plan to help them achieve their objective.

While researching the industry, Dorothy and Bill learned that successful stores selling similar products can expect to make a profit of 12 to 18 percent of gross, or total, sales. This translates into a sales goal in excess of \$150,000 per year to achieve a profit of \$25,000. After proper market research to validate that the market need is at least \$150,000, they must purchase whatever inventory, fixtures, and equipment will ensure that they reach their minimum sales objective.



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**Initial Inventory** To determine the amount of inventory you should purchase, you need to estimate how often the inventory will turn over. **Inventory turnover** is the number of times a business sells the amount of its base inventory in a year. If the average inventory turnover rate for a product is 5, divide projected sales by 5 to determine the minimum amount of inventory that should be available at all times. Average inventory turnover rates can usually be found by consulting an industry trade association or asking other entrepreneurs active in the industry. To achieve \$150,000 in sales, Dorothy and Bill will need to sell \$30,000 worth of retail inventory five times per year. Since the markup is 50 percent of the retail price, Dorothy and Bill must have a minimum of \$15,000 of initial inventory to open their business.

**One-Time-Only Start-up Costs** Many costs are incurred only once by the business during its start-up phase. When you have calculated the minimum amount of inventory, you should determine what kinds of equipment, fixtures, and leasehold improvements you will need. Equipment includes machinery, computers, cash registers, and other capital items used in the production and sale of products or services provided by your business. Some equipment can be leased. Fixtures include what is needed to house and display inventory, such as shelving units, gondolas, tables, and display cases. **Leasehold improvements** consist of improvements to the property such as carpeting, wallpaper, lighting, and so on. Money should also be available for signs, grand opening advertising and promotional events, utility deposits, and other one-time miscellaneous expenses related to opening the business.

Table 15-1 is a statement of one-time-only capital needed for a new business such as The Emporium. It represents the amount of money that will get the doors open. However, money will also be needed to cover operating expenses while the business gets established.

TABLE 15-1 THE EMPORIUM: ONE-TIME-ONLY CAPITAL NEEDS	
Fixtures and equipment	\$25,000
Decorating and remodeling	18,000
Installation cost	5,000
Starting inventory	15,000
Utility deposits	1,000
Legal and other fees	1,000
Grand opening promotion	4,000
Cash on hand	1,000
Other	5,000
<b>Total one-time-only expenses</b>	<b>\$75,000</b>

**Monthly Operating Expenses** In addition to start-up costs, entrepreneurs must also estimate the average monthly cost of keeping the business running smoothly. It will take time to generate sufficient sales to cover all expenses, so the business owner should set aside enough money to cover initial expenses without depending on sales revenues. It is generally recommended that you keep three months of operating expense capital in an operating reserves account so that you can concentrate on building sales without

### FUN FACTS

The number of post-secondary schools, colleges, and universities that offer entrepreneurship courses has grown tenfold in the past 15 years. Many programs offer majors and even graduate study programs in entrepreneurship. Nearly all community colleges and technical schools offer training in financial and spreadsheet software programs.

worrying about how you're going to pay the bills. One method of calculating the optimum operating reserve is to add up the monthly rent, employees' salaries, average cost of utility services, insurance premiums, and all other expenses. Then multiply the total projected monthly operating expenses by three (representing three months) to arrive at the amount that should be available in the initial capitalization plan for operating expenses. An example of these calculations is shown in Table 15-2 for Dorothy and Bill's business, The Emporium.

TABLE 15-2 THE EMPORIUM: INITIAL OPERATING EXPENSES		
Item	Expenses (One Month)	Expenses (Three Months)
Owner's salary	\$2,000	\$6,000
Other salary	900	2,700
Rent	1,600	4,800
Operating supplies	270	810
Taxes and licenses	125	375
Utilities	300	900
Advertising	250	750
Insurance	200	600
Accounting and legal	165	495
Loan principal and interest	225	675
Miscellaneous	150	450
<b>Total monthly expenses</b>	<b>\$6,185</b>	<b>\$18,555</b>

Adding the total amount of one-time-only capital needs to your initial operating expenses will give you the total amount you will need to fund your business idea—your initial capitalization. For instance, to determine total capitalization for The Emporium, you would add its one-time-only capital needs (Table 15-1) to its three-month operating expenses (Table 15-2).

$$\$75,000 + \$18,555 = \$93,555$$

Once you have determined this figure for your business, your next step is to devise a plan to make sure the money is available to you.

## FINANCIAL STATEMENTS

Financial statements are important control tools for the entrepreneur. They help the entrepreneur stay on target by making adjustments when results do not match projections. The business plan for a new business should include a **pro forma financial statement**, which is a projected statistical report that describes the expected financial status of a business at a future date. To demonstrate the validity of a business idea, entrepreneurs must project success in its pro forma income statements, balance sheets, and cash flow spreadsheets.

## Income Statements

An **income statement** shows the revenues, or monies collected, and the expenses, or monies paid out, of a business over a specified period of time. It also shows the business's profits. New business owners should make pro forma income statements for the first year of operation as well as for future years (usually the first three). If they are properly done and show a realistic profit, these income statements will serve to support the reasons for starting the business.

A simplified pro forma statement for the first year of operation of The Emporium, after one-time capital expenditures have been paid, might look like Table 15-3.

Sales	\$150,000	
Cost of goods sold (incl. freight charges)	78,000	
Gross profit		72,000
Operating expenses		
Payroll	10,800	
Rent	19,200	
Maintenance and repairs	600	
Operating supplies	3,200	
Taxes and licenses	1,500	
Utilities	3,600	
Advertising	3,000	
Insurance	2,400	
Accounting and legal	1,980	
Miscellaneous	1,800	
Total operating expenses		48,080
Net operating profit		\$23,920

This statement makes use of the itemized expenses in the initial operating expenses statement in Table 15-2. It shows the expected sales and operating expenses for one year. In this case, it is evident that if the business is properly managed and the location is suitable, it can expect to realize the goal of a \$24,000 profit the first year.

Future projections indicate the planned growth of the business. Growth projections are based on factors such as industry growth, market population growth, and growth that can be expected as the business becomes better known. In the case of The Emporium, Dorothy and Bill have determined that they can expect revenue growth of 15 percent in the second year (\$150,000 to \$172,500 = 15 percent increase), and 10 percent in the third year (\$172,500 to \$189,750 = 10 percent increase). The pro forma income statement for the second and third years of this business is shown in Table 15-4 on the next page.

**TABLE 15-4 THE EMPORIUM: SIMPLIFIED PRO FORMA INCOME STATEMENT, SECOND AND THIRD YEARS**

	Second Year	Third Year
Sales	\$172,500	\$189,750
Cost of goods sold	88,000	90,200
Gross profit	84,500	99,550
Operating expenses		
Payroll	12,000	13,000
Rent	19,000	19,000
Maintenance and repairs	1,100	1,200
Operating supplies	3,300	3,400
Taxes and licenses	1,600	1,700
Utilities	3,600	3,600
Advertising	3,400	3,800
Insurance	2,500	2,600
Accounting and legal	2,100	2,200
Miscellaneous	2,000	2,200
Total operating expenses	50,600	52,700
Net profit	\$33,900	\$46,850

## Balance Sheets

A **balance sheet** is a financial statement that shows the worth, or value, of a business. A pro forma balance sheet projects the growth of a business in terms of how much capital value the business will have at a particular date in the future. The business plan should include a pro forma balance sheet for its opening date as well as one indicating what the business should be worth one year from opening and possibly later. Table 15-5 shows a simplified pro forma balance sheet for the Novelties Gift Shop.

**TABLE 15-5 NOVELTIES GIFT SHOP: SIMPLIFIED PRO FORMA BALANCE SHEET**

Assets		Liabilities and Owner's Equity	
Current assets		Current liabilities	
Cash	\$ 6,400	Accounts payable	\$ 5,200
Inventory	15,000	Current portion of long-term debt	3,300
Total current assets	21,400	Long-term liabilities	6,700
Fixed assets	17,900	Total liabilities	15,200
		Owner's equity	24,100
Total assets	\$39,300	Total liabilities and owner's equity	\$39,300



The balance sheet has two sides: assets and liabilities. The **assets** side shows all property and capital to which the business claims ownership. The **liabilities** side shows all the debts of the business. The **net worth** of a business, also called value or owner's equity, is determined by adding all the value of what is owned (the assets) and subtracting from this the total debt of the business (the liabilities). Table 15-5 is called a balance sheet because the net worth is added to the liabilities to achieve the "balanced" totals on each side of the ledger.

Assets are listed as current and fixed. **Current assets** include cash and assets that are easily converted into cash, such as inventory and accounts receivable. **Fixed assets** are those capital purchases that generally take a longer time to convert or liquidate into cash, such as property, equipment, and fixtures that require a special buyer.

Liabilities are listed as current or long term. **Current liabilities** are debts that are to be paid within 12 months of the date of the balance sheet. **Long-term liabilities** are usually debts that come due more than 12 months after the date of the balance sheet. Long-term liabilities are generally associated with the purchase of fixed assets such as mortgage notes on property and equipment. By breaking liabilities down into short and long term, it is easy to calculate how much money the business could raise on short notice for emergency purchases or expansion. The goal of the business owner is to always keep current assets greater than current liabilities. Otherwise the business will be considered "technically bankrupt."

**Liquidity** A balance sheet allows entrepreneurs, bankers, and investors to quickly determine the liquidity of a business operation. **Liquidity** is defined as a business's ability to meet its debt obligations as they become due. Two common methods of determining a business's liquidity are current ratio tests and acid-test ratios.

The **current ratio** test compares cash, as well as any assets that can be converted into cash within a year, with the debt (liabilities) that will become due and payable within the year. The assets are the current assets listed on the balance sheet, and the liabilities are the current liabilities. The ratio is expressed as:

$$\text{current ratio} = \text{current assets} \div \text{current liabilities}$$

The current ratio of the business described in Figure 15-5 is:

$$2.52 = \$21,400 \div \$8,500$$

A favorable current ratio would be 2:1. A minimum acceptable ratio would be 1:1, which indicates that there are sufficient current assets on hand so that, if sold, the business would be able to meet all its obligations.

The **acid-test ratio** is more restrictive as it eliminates inventory, the least liquid of current assets, from the numerator.

$$\text{acid-test ratio} = (\text{current assets} - \text{inventory}) \div \text{current liabilities}$$

The acid-test ratio for the Novelties Gift Shop is:

$$0.753 = (\$21,400 - \$15,000) \div \$8,500$$

The acid-test ratio will, of course, be lower than the current ratio and will give a better indication of a business's liquidity in an emergency situation.



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### FUN FACTS

It is estimated that 95 percent of all entrepreneurs depend primarily on their own investment money to start a new business. Fewer than 1 percent of start-ups are capitalized by venture capital sources. The SBA assisted over 76,000 small businesses with loan guarantees in 2003.



The Novelties Gift Shop has a reasonably good current ratio but a somewhat questionable acid-test ratio.

### Cash Flow

To get a better idea of how well your business will operate during the first year, you must break the year down into a month-by-month projection of financial activities, or a **cash flow statement**. This analysis allows you to prepare for potential cash flow problems, which are caused by changing sales and payment patterns often created by seasonal and industry fluctuations. A cash flow statement tells you what your business's cash position really is. For example, since many of your customers will purchase goods on credit, you may not receive payment (cash) for those purchases for a month or more. Although on paper the purchases may show up as sales, they do not involve cash payment. Also, goods are sometimes purchased and paid for by the

**TABLE 15-6 12-MONTH CASH FLOW CYCLE PLANNING FORM**

NAME OF BUSINESS		TYPE OF BUSINESS								DATE	
		Pre-start-up position		Month 1		Month 2		Month 3		TOTAL	
YEAR	MONTH									Months 1-12	
		Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual	Estimate	Actual
<b>1. CASH ON HAND</b> (Beginning of month)											<b>1.</b>
<b>2. CASH RECEIPTS</b>											<b>2.</b>
(a) Cash sales											(a)
(b) Collections from credit accounts											(b)
(c) Loan or other cash injection (specify)											(c)
<b>3. TOTAL CASH RECEIPTS</b> (2a + 2b + 2c = 3)											<b>3.</b>
<b>4. TOTAL CASH AVAILABLE</b> (Before cash out) (1 + 3)											<b>4.</b>
<b>5. CASH PAID OUT</b>											<b>5.</b>
(a) Purchases (merchandise)											(a)
(b) Gross wages (excludes withdrawals)											(b)
(c) Payroll expenses (taxes, etc.)											(c)
(d) Outside services											(d)
(e) Supplies (office and operating)											(e)
(f) Repairs and maintenance											(f)
(g) Advertising											(g)
(h) Car, delivery, and travel											(h)
(i) Accounting and legal											(i)
(j) Rent											(j)
(k) Telephone											(k)
(l) Utilities											(l)
(m) Insurance											(m)
(n) Taxes (real estate, etc.)											(n)
(o) Interest											(o)
(p) Other expenses (specify each)											(p)
(q) Subtotal											(q)
(r) Loan principal payment											(r)
(s) Capital purchases (specify)											(s)
(t) Other start-up costs											(t)
(u) Reserve and/or escrow (specify)											(u)
(v) Owner's withdrawal											(v)
<b>6. TOTAL CASH PAID OUT</b> (Total 5a thru 5v)											<b>6.</b>
<b>7. CASH POSITION</b> End of month, 4 minus 6											<b>7.</b>

business even when the goods are still in inventory. For these reasons the business may appear more cash-rich than it really is.

Many seasonal businesses make the great majority of their annual profits in a relatively short period of time. An income statement shows how much profit the business makes but not when the profit is realized. It is the cash flow analysis that reveals this and makes it clear that the business must spread out its profits to compensate for slower sales periods during the year.

The owner of a business such as the Novelties Gift Shop needs to understand how the projected \$150,000 in sales will occur. Particularly in a retail business, in which a great portion of sales might be made at the end of the year during the holiday season, the new owner must plan for the impact that different seasons have on the cash flow cycle. Consulting industry sources to find the percentage of total sales normally received each month of the year allows the owner to budget expenses to accommodate these fluctuations. Table 15-6 is an example of a form available from the Small Business Administration for calculating and recording cash flow.

A cash flow spreadsheet is simply a cash budget similar to one you might use to keep track of your personal cash inflow and outflow. In your personal budget, you schedule your payouts according to when you get paid. A business declares its cash on hand at the beginning of each month and adds to it all projected revenues for the coming month. Table 15-7 is the 12-month cash flow spreadsheet of the Novelties Gift Shop.

**TABLE 15-7 NOVELTIES GIFT SHOP 12-MONTH CASH FLOW**

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Beg. cash</i>	10,000	825	4,500	6,875	9,600	10,975	10,700	9,775	9,950	8,975	15,550	20,925
<b>REVENUES</b>												
Retail	8,000	12,000	13,000	15,000	14,000	11,000	8,000	8,000	7,000	14,000	18,000	26,000
<b>TOTAL REV.</b>	8,000	12,000	13,000	15,000	14,000	11,000	8,000	8,000	7,000	14,000	18,000	26,000
<i>Avail. cash</i>	18,000	12,825	17,500	21,875	23,600	21,975	18,700	17,775	16,950	22,975	33,550	46,925
<b>EXPENSES</b>												
Goods	13,000	4,000	6,000	7,000	8,000	7,000	5,000	4,000	4,000	3,000	7,000	9,000
Freight	200	200	200	200	250	200	100	100	100	100	100	300
Rent	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Payroll	1,000	1,200	1,200	1,400	1,300	1,000	1,000	1,000	1,000	1,200	1,500	2,000
Advertising	200	300	500	500	400	300	200	200	200	200	1,000	1,000
Supplies	100	150	150	150	100	100	150	50	50	250	350	350
Travel	100	0	100	0	100	100	0	0	0	0	0	0
Phone	125	125	125	125	125	125	125	125	175	125	125	125
Utilities	100	100	100	100	100	100	100	100	100	200	200	200
Maintenance	100	100	100	150	100	150	100	100	100	150	150	150
Accountant	100	100	100	600	100	100	100	100	100	100	100	100
Interest	100	100	100	100	100	100	100	100	200	100	100	200
Bank fees	150	50	50	50	50	100	50	50	50	100	100	150
Insurance	150	150	150	150	150	150	150	150	150	150	150	150
Misc.	250	250	250	250	250	250	250	250	250	250	250	250
<b>EXPENSES PAID OUT</b>	17,175	8,325	10,625	12,275	12,625	11,275	8,925	7,825	7,975	7,425	12,625	15,475
<i>End cash</i>	825	4,500	6,875	9,600	10,975	10,700	9,775	9,950	8,975	15,550	20,925	31,450
Total revenues for the year = \$154,000												
Total cost of goods for the year = \$79,050 (includes freight charges)												
Total operating expenses for the year = \$53,500												

Keep in mind that not all sales count as revenues in businesses that allow credit. Also, revenues can come from sources other than sales, such as loan proceeds and accounts receivable. Therefore the cash inflow is only the actual cash that is received and deposited in a particular month.

The same is true of projected payments. You project the bills that are to be paid that month, which do not necessarily include all your bills. Some invoices may have extended billing terms, and others may be disputed. “Expenses paid out” lists only that portion of debts that will actually be paid in that particular month. When you have totaled the projected expenses paid out, subtract it from the total of the beginning cash balance plus projected cash inflow to arrive at an estimated cash position at the end of the month. Then carry this figure over to the next month as the beginning-of-the-month cash on hand.

$$\begin{array}{r} \text{Beginning} \\ \text{cash} \end{array} + \begin{array}{r} \text{revenues} \\ \text{collected} \end{array} = \begin{array}{r} \text{total cash} \\ \text{available} \end{array} - \begin{array}{r} \text{expenses} \\ \text{paid out} \end{array} = \begin{array}{r} \text{ending cash} \\ \text{balance} \end{array} = \begin{array}{r} \text{next month's beginning} \\ \text{cash balance} \end{array}$$

You should keep a cash flow spreadsheet on your computer at all times. A software spreadsheet program such as Excel or Lotus allows you to post daily cash flow changes that can be incorporated immediately into a projected 12-month cash flow plan. If your cash flow falls short or exceeds expectations in a given month, you can enter the change on the spreadsheet and it will automatically calculate the impact on the remainder of the year.



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If sales are not as expected on a particular day, the results are reflected immediately in the cash flow projection for the rest of the month, and you can make the necessary corrections immediately. This is particularly useful for any new business owner who is not experienced at making projections.

It is very common for a business to show some months with excess cash coming in while other months may show too little to meet obligations. You must keep this possibility in mind and properly allocate money in different cycles. If there are cash deficits during slow seasons, you can use a line of credit at the bank.

Bankers will want to review your cash flow projections before issuing a line of credit.

It is not difficult for entrepreneurs to go bankrupt if cash is flowing out of the business much faster than it is flowing in. They may be making a profit on the items they sell, but if cash is coming in too slowly, the business may have to close. An example of a cash flow problem that could destroy a successful business is illustrated by the following example.

Edith Brown's linen supply business had a very promising start. She had lined up a number of impressive contracts with hotels and hospitals, from whom she expected sales of \$100,000 per month. The gross margin of the business was slim—approximately 20 percent—so she would have to make up for it with volume. Since she was new to the industry, she agreed to pay

her cleaning service and linen suppliers cash on delivery and planned to bill her clients on a net 30 payment basis. Therefore, although her business showed sales of \$100,000 for the first month, it had no income, only the cost-of-goods expense of \$80,000 and the expected operating expense payments of \$20,000. The \$100,000 was scheduled to be collected during the second month. To cover this initial imbalance she arranged a \$100,000 bank loan and created a first-month cash flow projection:

Beginning cash on hand	\$	0
Sales collected		0
Bank loan proceeds		100,000
Total cash available		\$100,000
Cash paid out		
Cost of goods		80,000
Operating expenses		20,000
Total cash paid out		\$100,000
Ending cash position		0

Although Edith recognized that the ending cash balance was zero, she knew that she would be collecting \$100,000 in receipts in month two. Besides, she was adding more contracts and business was good. In fact, business continued to be excellent, increasing at a rate of 5 percent each month. Despite the brisk pace, however, Edith found herself in a very deep cash flow hole five months down the road. Her anticipated 30-day collections were not on schedule—instead, she received 50 percent in 30 days and the other 50 percent in 60 days. Edith was still paying cash on delivery for her goods.



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	Month 2	Month 3	Month 4	Month 5
Beg. cash on hand	0	(\$55,000)	(\$61,500)	(\$68,000)
Sales	[105,000]	[110,000]	[116,000]	[122,000]
Sales collected	50,000	102,500	107,500	113,000
Total cash available	50,000	47,500	46,000	46,000
Cash paid out				
Cost of goods				
(80% sales)	84,000	88,000	93,000	98,000
Operating expenses*	21,000	21,000	21,000	21,000
Total cash paid out	105,000	109,000	114,000	119,000
Ending cash position	(55,000)	(61,500)	(68,000)	(73,000)

\*Increased \$1,000 due to interest on \$100,000 loan.



Edith was scrambling from one month to the next trying to make it all work. She went back to the bank and asked for help. The banker explained that the problem was not with the business, which was operating at a profitable pace, but with the cash flow. He showed Edith how her cash flow would work for the next month if she were paying on 30-day credit terms for her goods and collecting in 30 days as she had originally projected.

Sales	[\$130,000]
Sales collected (from month 5)	<u>122,000</u>
Total cash available	122,000
Cash paid out	
Cost of goods (due on month 5 purchases)	\$98,000
Operating expenses	<u>21,000</u>
Total cash paid out	<u>119,000</u>
Ending cash position	\$3,000



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The banker explained that because Edith was paying before collecting, the faster her business grew, the more money she had to pay in advance. It was a catch 22 situation. Unless she gained control of her cash flow, the bank would not be able to help her and the situation would only worsen. Once she had resolved the issues with her suppliers and clients, however, the bank could work with her as her enterprise appeared to be very profitable.

Edith met with her suppliers, explained the situation, and managed to arrange credit with them. She then imposed on her clients stiff penalties for late payments.

Eventually she pulled all the pieces together, received a sufficient line of credit from the bank to help her through the cash flow problem, and was on her way to a successful entrepreneurial career.

## Cash Flow Projections and Initial Capital Needs

A cash flow projection can be used to help determine the initial capital reserve for a start-up operation. Instead of multiplying the operating expenses estimate by three months, as illustrated earlier, enter zero in the opening cash-on-hand column of the cash flow spreadsheet. By listing projected monthly revenues and operating expenses in the cash flow spreadsheet, you will see the deficit that will be incurred in the first few months of operation. Carry the deficits forward until you reach the month in which a surplus



## The Global **ENTREPRENEUR**

The Securities and Exchange Commission, a federal agency, has assisted in the creation of an International Accounting Standards Committee. The purpose of the committee is to develop a global financial reporting framework that ensures access to high-quality financial information by investors and businesses in all markets. This measure is meant in part to encourage participation by small business owners in the growing global market.

### Think Critically

1. Why is this standardization important to a small business owner who wishes to enter a contractual agreement with a foreign company?
2. What other financial information, in addition to formal accounting statements, would you require before doing business with a foreign company?

occurs. The total deficit incurred before reaching that month is the amount of operating reserve you should include in your business plan. When you enter that figure in the opening cash-on-hand column, the cash flow statement will not show any deficits in the opening months.

	Month 1	Month 2	Month 3	Month 4	Month 5
Beg. cash	\$ 0	(\$5,000)	(\$7,000)	(\$7,000)	(\$6,000)
Cash collected	5,000	10,000	12,000	14,000	15,000
Cash paid out	10,000	12,000	12,000	13,000	13,000
Ending cash bal.	(5,000)	(7,000)	(7,000)	(6,000)	(4,000)

In the scenario above, you could find the point of greatest deficit (\$7,000) and insert that figure as cash collected in month 1 as a personal contribution or as loan proceeds, thus eliminating any cash flow deficits in the cash flow plan.

A word of caution to optimistic entrepreneurs: When you project the cash flow for your new business, use a conservative approach. It is very easy to change a figure to ease the need. If there is a \$5,000 deficit, for instance, it may be tempting to simply hit a button that increases the sales projection by \$5,000, thereby eliminating the need for \$5,000 to cover the deficit. It would be wiser in the long run to use a worst-case scenario as you prepare your cash flow projection.

When you have put together a capital needs statement, pro forma income statements, balance sheets, and a monthly cash flow projection, you will have your financial plan in place. The information you have gathered will indicate how much money you will need to open and operate the business during its start-up phase; the income that the business should generate in its first, second, and third years of operation; and the expected value of the business upon opening and at the end of the first year or later. These are essential ingredients of the business plan. They will determine whether or not you will need to borrow money for your business idea or attract investors to share the risks and profits.



### Small Business Technology

The original accounting software programs of the 1980s were few and very basic. Most programs had to be tailored by local computer experts to fit specific businesses. Now hundreds of software programs are available for almost any kind of business. Well-known programs for small businesses include Oracle Small Business, Microsoft CRM, QuickBooks Pro, and Business Works.

## FINANCIAL RECORDS

With the variety of software programs now available, maintaining business records has never been easier. Popular accounting programs such as QuickBooks have eliminated the need for many accounting services. Entrepreneurs should maintain their own daily and monthly accounting records and use accountants for preparing tax returns and formal financial statements. Business owners who do not stay on top of their accounting records run the risk of having an incomplete and therefore inaccurate picture of their financial position, which will then hamper their decision-making.

Small business owners should have easy access to the financial records described below.

**Income and Expense Register** All accounting software programs keep an up-to-date transaction accounting of income and expenses. When you enter sales receipts, they will be broken down into gross amount received, sales tax collected, and any extra charges received, minus credit card fees, refunds, returns, and so on. The check disbursement register (Table 15-8) will show the date, check number, name of payee, and amount paid. It will also enter the payment in its proper expense classification, such as rent, utilities, and supplies. If you post daily, you can count on always having an up-to-date record of all your financial transactions, which will help you make important business decisions. You can also create reports that show daily, weekly, monthly, quarterly, or year-to-date receipts and expenses.

**TABLE 15-8 CHECK REGISTER SPREADSHEET**

	DATE	CHECK No.	TO WHOM PAID	AMOUNT	PAYROLL	RENT	MAINT.	SUPPLIES	TAXES	UTILITIES	ADVERTISING	INSURANCE	ACCTG./ LEGAL	MISC.
1														
2														
3														
4														
5														
6														
7														
8														
9														

**Accounts Payable Ledger** It is crucial that you keep up with all the debts you owe. An accounts payable ledger will list by account name all the bills your business needs to pay. It will show the amount owed, the due date, and the vendor's name and address. When you have paid the bill, the ledger will show the amount and date paid, any discounts taken, and year-to-date purchases from that particular vendor.

**Accounts Receivable Ledger** As illustrated by the story of Edith Brown and her linen supply business, keeping track of monies owed to the business is vitally important. An accounts receivable ledger keeps track of who owes the business money, invoice due dates, and the payment history of each customer. When a payment is received, it is entered into the accounts receivable

ledger, which automatically reduces the balance due the business by the amount paid.

**Furniture, Fixture, and Equipment Ledger** All purchases of fixed assets should be recorded in a separate ledger. This will maintain an up-to-date record of business assets and the dates they were purchased. This is important because these assets are eligible for depreciation deductions, which are allowed on any equipment that will wear out or have to be replaced in the future. The Internal Revenue Service allows businesses to deduct a percentage of the cost of the equipment each year as a way to retain earnings to replace the equipment at a later date. Various depreciation schedules are used, depending on the industry and the type of equipment. The most common is a straight-line seven-year schedule, which allows the business to deduct a depreciation expense 1/7th of the cost of the equipment each year for seven years. With a furniture, fixture, and equipment ledger, the accounting software can quickly calculate the depreciation expense of each capital equipment purchase.

### Notes Payable Ledger

Any money borrowed for the business should be recorded, showing the lender, the date the note becomes due, the interest rate to be paid, and any special payment arrangements. If the ledger is kept current, it will automatically record all payments and show an up-to-date accounting of outstanding principal.

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**Payroll Records** Keeping payroll records on your computer greatly eases the burden of payday. Accounting software will keep a record of all employees, the wages paid, taxes withheld, benefits expenses deducted, and so on. Some programs even write the checks. At the end of a pay period, all payroll expenses are totaled and classified. At the end of the calendar year, the business issues W-4 statements to employees or 1099 forms to independent contractors using the information recorded each payday.

Successful entrepreneurs understand the importance of staying on top financially. They are not intimidated by accounting and financial management. Electronic bookkeeping software is not difficult to use and is an important asset for any entrepreneur trying to grow a business.



# Chapter Review

## Ship in a BOTTLE

### The Financial Plan



It was time for Fred to tackle the future financial plan for Ship in a Bottle. He had a starting point from which to project and was ready to complete three-year pro forma income statements, pro forma balance sheets, and a 12-month cash flow spreadsheet. He started by stating his objectives.

*Year one* Launch the business on a part-time basis, gain experience, and prepare for a full-time venture.

*Year two* Become a full-time entrepreneur by developing the business to the point that a major expansion could be considered that would allow Jeanie to join him and open opportunities for other family members and friends to become part of the team.

*Year three* Own and manage a growing, dynamic imported-nautical-gift business with a full staff, including outside sales personnel.

"I might as well think big," Fred thought. "I can always change my plans, depending on how quickly it grows, but for now, I'm going for it!"

Year one was reasonably easy to project, based on his initial assessments of trade show and web site sales and his current investment. Sales would be equally split between wholesale and retail. His conservative estimate of first-year revenues was \$40,000.

Sales	
Retail	\$20,000
Wholesale	20,000
Total sales	40,000
Cost of goods (including freight charges)	18,000
Gross profit	\$22,000
Operating expenses	
Advertising (brochures, Internet services)	2,900
Payroll (2 part-time independent contractors)	1,200
Mailing	600
Travel (4 trade shows, visits to wholesalers)	1,500
Van lease	3,000
Telephone	1,200
Web site maintenance	600
Accounting	400
Supplies (packaging materials, etc.)	600
Interest (credit card)	300
Trade show exhibit fee	4,500
Miscellaneous (bank fees, petty cash, etc.)	2,400
Total operating expenses	\$19,200
Net operating profit	\$2,800

Fred realized this was not a get-rich-quick business, but he was being conservative in his estimates and felt confident he could build from this base. Projecting the second year was exciting, although he did not feel quite as confident as with the first year. He predicted a dramatic growth in wholesale sales based on four trade-show exhibits and reorder sales from existing accounts.

*continued*

He was also excited about the idea of featuring more products on his web site, including high-priced nautical weather instruments, art, and home décor. Since he would be able to work full-time on the venture, he felt he could easily double the first-year revenues, for a total of \$80,000.

But what about the third year? Just how big could his business become? Could he fully develop an import business in such a short time? Why not plan it? He could slow down the pace if necessary and make adjustments if it turned out that growth would take longer than expected. Fred created a third-year pro forma income statement showing \$400,000 in revenues for an operation that included Jeanie, an office staff, and commission sales representatives.

	Year 1	Year 2	Year 3
<b>Sales</b>			
Wholesale	\$20,000	\$40,000	\$200,000
Retail	20,000	40,000	200,000
Total revenues	40,000	80,000	400,000
Cost of goods	18,000	36,000	180,000
Gross profit	22,000	44,000	220,000
<b>Operating expenses</b>			
Advertising	2,900	4,000	12,000
Payroll/commissions	1,200	4,800	80,000
Trade shows	4,500	4,500	13,500
Travel	1,500	3,000	6,000
Van lease	3,000	3,000	4,800
Telephone	1,200	1,400	2,500
Supplies	600	1,200	4,800
Interest	300	300	1,000
Miscellaneous	2,400	3,000	5,000
Total operating expenses	17,600	25,200	129,600
Net operating profit	\$4,400	\$18,800	\$ 91,000

Fred was a little concerned that he would have to survive on an income of less than \$20,000 during year two. But they would still have Jeanie's salary that year, and the thought of getting to year three made it seem worthwhile. Although he was currently a proprietor, he decided to change to a subchapter S corporation before year three. His payroll arrangement would not change, as he and Jeanie would declare the net profits as their income.

Making a cash flow spreadsheet for his first year of operation was not as difficult as he had feared. Since more than 50 percent of his business was retail and paid on sale and his outstanding accounts receivables came from carefully screened and qualified accounts, he did not anticipate collection problems. He felt sure that almost all accounts would be paid in the 30-day credit time. Therefore, once he was established, he could count on the 50 percent of his monthly sales that came from the web site being paid for immediately, and the remainder of the cash would be collected from the previous month's wholesale sales. If a month of \$4,000 in sales was followed by a month of \$3,000 in sales, the cash received would be \$1,500 from the second month's web site sales and \$2,000 (50 percent of \$4,000) from the previous month's wholesale sales, to equal total receipts of \$3,500. He would also have to show his arrangement with Johann and other vendors, which was to pay within 30 days of receiving the goods. Fred was also aware that he had to incorporate the Christmas holiday selling season into his wholesale and retail volume projections. For goods sent out to stores in October, he would show a wholesale revenue

*continued*

# Chapter Review

increase in November and a large retail increase in December. He laid out a 12-month cash flow spreadsheet (Table 15-9).

Fred turned his attention next to creating a pro forma balance sheet to prove that the venture would make a good investment. He already had the opening balance sheet in place from his current start-up expenses.

<u>Assets</u>		<u>Liabilities</u>	
Cash	\$1,500	Credit card loan	\$3,000
Inventory	4,500	Accounts payable	3,500
Supplies	450	Total liabilities	6,500
Brochures	2,000	Equity	4,350
Computer	2,400		
Total assets	\$10,850	Total liabilities/equity	\$10,850

Reviewing his second-year projections, Fred realized he would have to increase his inventory to realize the goal of doubling sales. He was willing to reinvest the \$2,800 projected net profit from year one and felt sure that Bill Barron at the bank would grant him a \$5,000 line of credit. The beginning of year two would look like this:

<u>Assets</u>		<u>Liabilities</u>	
Cash	\$ 1,500	Credit card loan	\$2,700
Inventory	11,500	Accounts payable	2,950
Supplies	450	Note payable	5,000
Brochures	2,000	Total liabilities	10,650
Computer	2,400	Equity	7,200
Total assets	\$17,850	Total liabilities/equity	\$17,850

Although this progress was not overwhelming, reinvesting the \$2,800 and reducing the credit card and accounts payable debts helped improve his equity. Bill Barron was impressed, particularly since the projections seemed conservative, and reassured Fred that the bank would assist him if the pro formas turned out to be reasonably accurate.

Bill also encouraged Fred to draw out his plan for the leap to the \$400,000 sales level. Fred knew a jump this large would require additional capitalization, but it was not impossible. To reach a sales level of this magnitude and set up a sales force, office staff, and proper technology, Fred estimated he would need an inventory worth \$50,000, additional equipment worth \$5,000, and a professional-looking catalog for \$20,000—approximately \$75,000 of additional capitalization. Counting on higher profits along the way, he calculated that he would have to borrow \$50,000 on a five-year note to make his dream come true. When the time was right, he was certain he would find the money either by taking out a bank loan or taking in an investor.

With his limited financial training, this was by far the hardest part of the business plan for Fred. But when he was done he felt good about what he had accomplished. He felt he was in control of his business.

## Critical Thinking

1. Is Fred getting ahead of himself by making a \$400,000 sales projection for year three?
2. What problems might he encounter that he has not considered?
3. Can you suggest ideas that will help Fred further develop his business?

**TABLE 15-9 SHIP IN A BOTTLE 12-MONTH CASH FLOW**

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>Beg. cash</i>	600	140	80	620	260	-600	2,790	-170	320	1,695	3,770	6,745
<b>REVENUES</b>												
Retail	1,500	1,000	1,500	1,500	1,500	1,200	1,000	1,400	800	2,300	4,300	7,400
Wholesale	1,300	1,300	1,300	1,400	1,400	1,200	1,500	1,300	2,100	1,700	1,700	1,800
Loan						3,000						
<b>TOTAL REV.</b>	2,800	2,300	2,800	2,900	2,900	5,400	2,500	2,700	2,900	4,000	6,000	9,200
<i>Avail. Cash</i>	3,400	2,440	2,880	3,520	3,160	4,800	5,290	2,530	3,220	5,695	9,770	15,945
<b>EXPENSES</b>												
Goods	500	1,000	1,200	500	1,500	400	1,700	500	200	1,000	1,200	2,000
Freight	0	200	0	0	800	0	0	600	0	0	500	500
Credit card	150	150	150	250	150	150	600	150	150	150	150	150
Web site		100	0	100	0	100	100	100	100	100	100	100
Advertising	100	100	50	100	400	400	300	100	100	100	100	400
Office	100	100	50	100	100	100	50	50	50	50	50	50
Travel	100	0	100	0	100	100	0	0	0	0	0	0
Phone	125	125	125	125	125	125	125	125	175	125	125	125
Misc.	100	100	100	100	100	100	100	100	100	200	200	200
Auto loan	335	335	335	335	335	335	335	335	400	0	400	0
Trade show	1,500	0	0	1,500	0	0	2,000	0	0	0	0	0
Interest	100	100	100	100	100	100	100	100	200	100	100	200
Bank fees	150	50	50	50	50	100	50	50	50	100	100	150
Loan pay												3,000
<b>EXPENSES PAID OUT</b>	3,260	2,360	2,260	3,260	3,760	2,010	5,460	2,210	1,525	1,925	3,025	6,875
<i>End cash</i>	140	80	620	260	-600	2,790	-170	320	1,695	3,770	6,745	9,070

## Summary

When starting a business operation, the entrepreneur must have a financial plan to arrange for the purchase of all necessary components. The plan starts with a realistic objective of desired profits and a calculation of what must be purchased to achieve that objective. Determining how much inventory is needed, what kind of equipment is required, and how much money will meet initial operating expenses is done by researching industry sources and talking to suppliers.

Once a total capitalization figure is determined, pro forma income statements and balance sheets are created to validate whether or not the business is a good investment and potentially profitable. These financial statements also show whether or not it will be necessary to borrow money or raise money from investors to open the business.

Successful entrepreneurs know the importance of maintaining a healthy cash flow into and out of the business operation. A cash flow spreadsheet shows how the money circulates in a business. It reflects changes in monthly revenues due to seasonal fluctuations and incorporates the business's sales collections and accounts payable arrangements. A poor cash flow plan can harm even the most profitable of businesses.

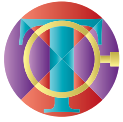
Many business owners use an accountant to assist in important financial and tax decisions because accountants are educated in these matters. But successful entrepreneurs maintain basic bookkeeping systems themselves and rely on accountants for advisory consultation, special reports, and tax matters. Today's accounting software has facilitated bookkeeping responsibilities considerably.



# Chapter Review

## A Case in POINT

### A Capital Idea



Paula Zelski was excited about the prospect of mass-producing her own line of designer T-shirts. She had produced a limited number, 200, which sold quickly in three local boutiques.

Paula expanded her line and hired Walt Crosby, a manufacturer's rep, to sell her shirts at a 15 percent commission. She planned to produce 10,000 units for a net profit of \$1.12 per unit. If she could increase her production run to 20,000, economies of scale would raise her per-unit profit to more than \$3 per shirt. She calculated her one-time-only capital needs at \$14,500 and monthly operating expenses at \$3,200. She had \$3,000 in the bank and borrowed \$15,000 on a home equity loan. After buying new equipment and purchasing the initial inventory, she had only one month's operating funds in her checking account. Everything else looked good. Walt had sold the 10,000 shirts to retailers at the Chicago spring fashion show.

Unfortunately, Paula had done a poor job of planning for accounts receivable. She encountered cash flow problems and ran out of money for payroll and rent. She was forced to borrow funds with her credit card at a much higher interest rate than on her home equity loan.

Eventually she collected all the money that was due and paid her bills, including the credit card debt, although the additional interest charges reduced her net profit. But her product continued to do well. Walt returned from the next show with orders for 18,000 more shirts. Paula's elation turned to panic when she realized she could not pay for the materials she would need to produce that many shirts.

### Think Critically

What did Paula neglect to do in her initial capitalization plan? What can she do now to keep the business going?

## Vocabulary Builder

Write a brief definition of each word or phrase.

1. acid-test ratio
2. assets
3. balance sheet
4. capital assets
5. capitalization
6. cash flow statement
7. current assets
8. current liabilities
9. current ratio
10. fixed assets
11. income statement
12. inventory turnover
13. leasehold improvements
14. liabilities
15. liquidity
16. long-term liabilities
17. net profit
18. net worth
19. pro forma financial statement
20. undercapitalized

## Review the Concepts

21. How are capital assets used in the operation of a business?
22. What is the starting point for determining a business's financial needs?
23. How are operating expenses calculated for a new business?
24. What is the difference between an income statement and a balance sheet?
25. Why should a business conduct a cash flow analysis?
26. What is the difference between current and fixed assets?
27. What are the financial records every entrepreneur should keep?
28. What financial transactions should be included in the daily bookkeeping system?

## Critical Thinking

29. Why is a financial plan such an important part of the overall business plan?
30. How does knowing the inventory turnover of a business help determine its capital needs?
31. What problems might an entrepreneur encounter if she does not conduct a cash flow analysis for her new business?
32. If the asset value of a business increases by \$2,000 and the liabilities decrease by \$1,000, by how much would the owner's equity change?
33. What would be the net profit of a business with total sales of \$350,000, a 50 percent retail markup, and operating expenses of 35 percent of total sales?
34. An entrepreneur has calculated one-time-only capital needs at \$10,000 and monthly operating expenses at \$3,000. He decides to open with only \$12,000. The first year's profits are expected to be \$30,000. What problems would you warn him about as a result of undercapitalization?

## Project

### Build Your Business Plan



In your business plan, make a one-time-only needs statement for your chosen business. Create a balance sheet showing assets and any liabilities that may be incurred. You may need to consult someone with experience in your chosen industry for this information.

Based on your sales projection, make a pro forma income statement to determine the feasibility of your idea. In addition, research the revenue fluctuations of the industry and create a monthly cash flow spreadsheet on your computer. A local SBA office or Small Business Development Center would be glad to assist you.