



# Budgeting: Seeing the Future

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# 13

## Budgeting

*Seeing the Future*

### **Key Topics Covered in This Chapter**

- *Essential functions of budgeting*
- *Types of budgets and their purposes*
- *Creating an operating budget*
- *Creating a cash budget*
- *Applying sensitivity analysis to budgets*

“**G**OOD GRIEF, it’s budgeting time again” is a common refrain among managers. Budgeting can cause stress and conflict and can eat up lots of hours. But good budgets are worth the time and trouble.

If you are the owner or manager of a small company with few cash resources, a good budget can be the difference between financial success and insolvency—or the business’s inability to expand to its full potential. The budgeting process forces you to estimate how many of each product or service you will produce and sell, the cost of those items, the pace at which receivables will be collected, general expenses, and taxes. These figures provide a forecast of the months or year ahead. A good budget helps you assess whether or not the business will have adequate financial resources to stay the course. For big businesses, forecasting and budgeting provide a similar benefit. And the resulting budget—for individual operation units and for the business as a whole—can be a powerful control mechanism. A budget is also an action plan that guides organizations to their strategic goals.

In this chapter, you’ll learn about the many kinds of budgets that serve very different purposes. You’ll also learn how to determine which type of budget will most effectively help you meet your business goals.<sup>1</sup>

## What Is Budgeting?

Before you go on a trip, you fill your bag with the clothes, food, and money you'll need. Budgeting is conceptually similar—planning your trip and ensuring that you'll have sufficient resources to make it to your destination. An organization plans its journey toward strategic objectives in a similar fashion, and it prepares for the journey with an action plan called a budget. A budget can accomplish various tasks:

- **Cover a short time span.** For example, a start-up company develops a budget to ensure that it will have enough cash to cover operating expenses for twelve months or so.
- **Take a long-term perspective.** For example, a pharmaceutical firm builds a multiyear budget for developing a new product.
- **Focus on required resources for a specific project.** For example, if a manufacturing firm needs to install machinery to achieve production efficiencies, then its budget will anticipate the cost of the installation.
- **Account for income as well as expenditures.** For example, a retailer creates a profit plan based on an expected increase in sales.

So what is a *budget*? It is the translation of strategic plans into measurable quantities that express the expected resources required and anticipated returns over a certain period. A budget functions as an action plan. It may also present the estimated future financial statements of the organization. Finally, a budget is an adaptable tool for management to use to achieve its strategic goals.

## Budget Functions

Budgets perform four basic functions, each critical to the success of a company in achieving its strategic objectives. These functions are planning, coordinating and communicating, monitoring progress, and evaluating performance.

### Planning

Planning is a three-step process to ensure that the organization will have the resources available to achieve its goals:

1. **Choosing goals.** The goals could be as comprehensive as the strategic mission of the organization. For example, as a manager at an Internet service provider (ISP), your goal could be “to be the most efficient provider of Internet services for our valued customers.” Or, as the general manager of a major-league baseball team, your goal could be specific and very focused: to increase revenues by 10 percent during the next quarter.
2. **Reviewing options and predicting results.** Once the goals have been determined, the next step is to look at the options available for attaining the goals and predict what the most likely outcomes would be for each option. For example, if your goal as a manager at an ISP is to become the most efficient provider of Internet services, then you could opt to maintain state-of-the-art equipment at all times, train the most skilled repair teams in the field, or concentrate on providing the most timely customer service. Or, as a baseball team general manager planning to increase revenues by 10 percent, you could consider raising prices or expanding your marketing program. Thus, predicting the costs and benefits of each option is part of planning.
3. **Deciding on options.** After an analysis of the potential costs and benefits of each option, the next step is to decide how to attain the desired goals. Choosing which options to implement establishes the direction the company will take. The budget reflects those decisions. As a manager at an ISP, for example, you may decide that, although the other two options are important, your focus should be on maintaining state-of-the-art equipment to provide the most efficient service for your customers. Or, as manager of the baseball team, you could decide that raising prices would most effectively bring in the specified increase in revenues.

### **Coordinating and Communicating**

Coordination is the act of gathering the pieces together—the individual unit budgets or division budgets—and balancing and combining them to achieve the master budget that expresses the organization's overall financial objectives and strategic goals. In many companies, this is quite a feat!

A master budget compiles the individual budgets from the functional areas of research and development, design, production, marketing, distribution, and customer service into one unit budget. Then the budgets from individual divisions, product lines, and subsidiaries are coordinated and integrated into a larger, cohesive result. Much like a composer weaving the music from many different instruments together to create a symphony, the master budget brings all the pieces together to achieve the organization's overall strategic plan and company mission. Details of the master budget will be discussed later in this chapter.

To achieve this end, communication is essential. Upper management needs to communicate the company's strategic objectives to all levels of the organization, and the individual planners need to communicate their particular needs, assumptions, expectations, and goals to those evaluating the departmental and functional budget pieces.

Additionally, the different groups within the company must always listen to one another. If one division is striving to achieve certain sales goals, then production must have that information to prepare for increased production capacity. If the company is introducing a new product, then the marketing department must be informed early in the planning process. The department will have to include in its budget the marketing efforts for the new product.

### **Monitoring Progress**

Once the plan has been set in motion, the budget becomes a tool that managers can use to periodically monitor progress. They assess progress by comparing the actual results with the budget. This feedback, or monitoring and evaluation of progress, in turn allows for

timely corrective action. If, on the one hand, the interim evaluation shows that the organization is right on target, with actual results matching the budget's expected results, then no adjustment to the action plan is required. However, if you discover that the actual results differ from the expected results, then you must take corrective action. For example, if your baseball team's goal is to increase revenues 10 percent by raising prices, but you find after one month that the fans are resistant to higher prices, then you might take corrective action by offering fans bonus packages to offset the negative impact of the higher prices.

The difference between the actual results and the results expected by the budget is called a *variance*. A variance can be favorable, when the actual results are better than expected, or unfavorable, when the actual results are worse than expected. For example, after the first month of the new baseball season, you evaluate how the ticket sales are proceeding (table 13-1).

Overall, unit tickets sales are lower than expected, but you observe that there is a favorable variance for the higher-priced infield box seats (ticket buyers don't seem to mind the price hike for these

**TABLE 13 - 1**

**Ticket Sales Performance Report for April**

	AVERAGE TICKETS SOLD PER GAME		
	Actual Results	Budgeted Amounts	Variance
<b>Infield Box</b>	2,500	2,000	+ 500; favorable
<b>Grandstand</b>	6,850	7,000	- 150; unfavorable
<b>Outfield Grandstand</b>	7,700	9,000	- 1,300; unfavorable
<b>Bleachers</b>	11,850	12,000	- 150; unfavorable
<b>Total</b>	28,900	30,000	- 1,100; unfavorable

Source: HMM Budgeting.

seats). The biggest concern you have is the higher, unfavorable variance for the outfield grandstand seats. This is where you would concentrate your corrective action, because these fans seem to be responding to the higher prices by staying away. Thus, variance analysis can help you identify a problem early in the budget cycle and take the appropriate action.

Note here that we were strictly interested in units, not revenues. Managers could also conduct the budgeting exercise using revenues.

### **Evaluating Performance**

Effective performance–evaluation systems contribute to the achievement of strategic goals, and budgets provide essential tools for measuring management performance. After all, a manager who makes basic planning and implementation decisions should be held accountable for the results. By comparing the actual results to the budget for a given period, an evaluator can determine the manager’s overall success in achieving his or her strategic goals. Performance evaluations serve a number of purposes:

- They motivate employees through reward systems based on performance.
- They provide the basis for compensation decisions, future assignments, and career advancement.
- They create a basis for future resource allocations.

### **Types of Budgets**

The notion of the traditional budget has been under growing attack from those who believe that it no longer serves the needs of modern organizations. Critics complain that budgets are timed incorrectly (too long or too short), rely on inappropriate measures, and are either too simplistic (or too complex), too rigid in a changing business environment, or too unchallenging (for instance, the bar is deliberately

set so that managers can hit their targets and collect their bonuses). Many budgets we'll explore in this chapter were developed to address some of these difficult planning issues.

### **Short-Term Versus Long-Term Budgets**

Budgets are typically developed to cover a one-year time span. But the period covered by a budget may vary according to the purpose of the budget, particularly as your company defines value creation. If an organization is concerned with the profitability of a product over its expected five-year life, then a five-year budget may be appropriate. If, on the other hand, a company is living hand-to-mouth, which is often the case with start-up companies, then a month-by-month budget that focuses on immediate cash flow might be more useful.

### **Fixed Versus Rolling Budgets**

A fixed budget covers a specific time frame—usually one fiscal year. At the end of the year, a new budget is prepared for the following year. A fixed budget may be reviewed at regular intervals—perhaps quarterly—so that adjustments and corrections can be made if needed, but the basic budget remains the same throughout the period.

In an effort to address the problems of timeliness and rigidity in a fixed budget, some firms, particularly those in rapidly changing industries, have adopted a rolling budget. A *rolling budget* is a plan that is continually updated so that the time frame remains stable while the actual period covered by the budget changes. For example, as each month passes, the one-year rolling budget is extended by one month, so that there is always a one-year budget in place. The advantage of a rolling budget is that managers have to rethink the process and make changes each month or each period. The result is usually a more accurate, up-to-date budget incorporating the most current information.

The disadvantage of a rolling budget is that the planning process can become too time-consuming. Moreover, if a company reviews its

budget on a regular basis (say, every quarter for a one-year budget), analyzes significant variances, and takes whatever corrective action is necessary, then the fixed budget truly isn't as rigid as it seems.

### **Incremental Versus Zero-Based Budgeting**

*Incremental budgeting* extrapolates from historical figures. Managers look at the previous period's budget and actual results as well as expectations for the future in determining the budget for the next period. For example, a marketing department's budget would be based on the actual costs from the previous period but with increases for planned salary raises. The advantage of incremental budgeting is that history, experience, and future expectations are included in the development of the budget.

A disadvantage often cited by critics of the traditional budget is that managers may simply use the past period's figures as a base and increase them by a set percentage for the following budget cycle rather than taking the time to evaluate the realities of the current and future marketplace. Managers can also develop a use-it-or-lose-it point of view, with which managers feel they must use all the budgeted expenditures by the end of the period so that the following period's budget will not be reduced by the amount that would have been saved.

*Zero-based budgeting* describes a method that begins each new budgeting cycle from a zero base, or from the ground up, as though the budget were being prepared for the first time. Each budget cycle starts with a critical review of every assumption and proposed expenditure. The advantage of zero-based budgeting is that it requires managers to perform a much more in-depth analysis of each line item—considering objectives, exploring alternatives, and justifying their requests. The disadvantage of zero-based budgeting is that although it is more analytic and thorough, developing the budget can be extremely time-consuming, so much so that it may even interfere with actuating that budget. Planning needs to precede, but never overwhelm, action.

### **Kaizen Budgeting**

*Kaizen* is a Japanese term that stands for continuous improvement, and Kaizen budgeting attempts to incorporate continuous improvement into the budgeting process. Cost reduction is built into the budget on an incremental basis so that continual efforts are made to reduce costs over time. If the budgeted cost reductions are not achieved, then extra attention is given to that operating area. For example, a manufacturing plant may budget a continuous reduction in the cost of components, as shown below, putting pressure on suppliers to find further cost reductions.

January–February	\$100.00
February–March	\$99.50
March–April	\$99.00

This type of incremental budgeting is difficult to maintain because the rate of budgeted cost reduction declines over time, making it more difficult to achieve improvements after the “easy” changes have been achieved.

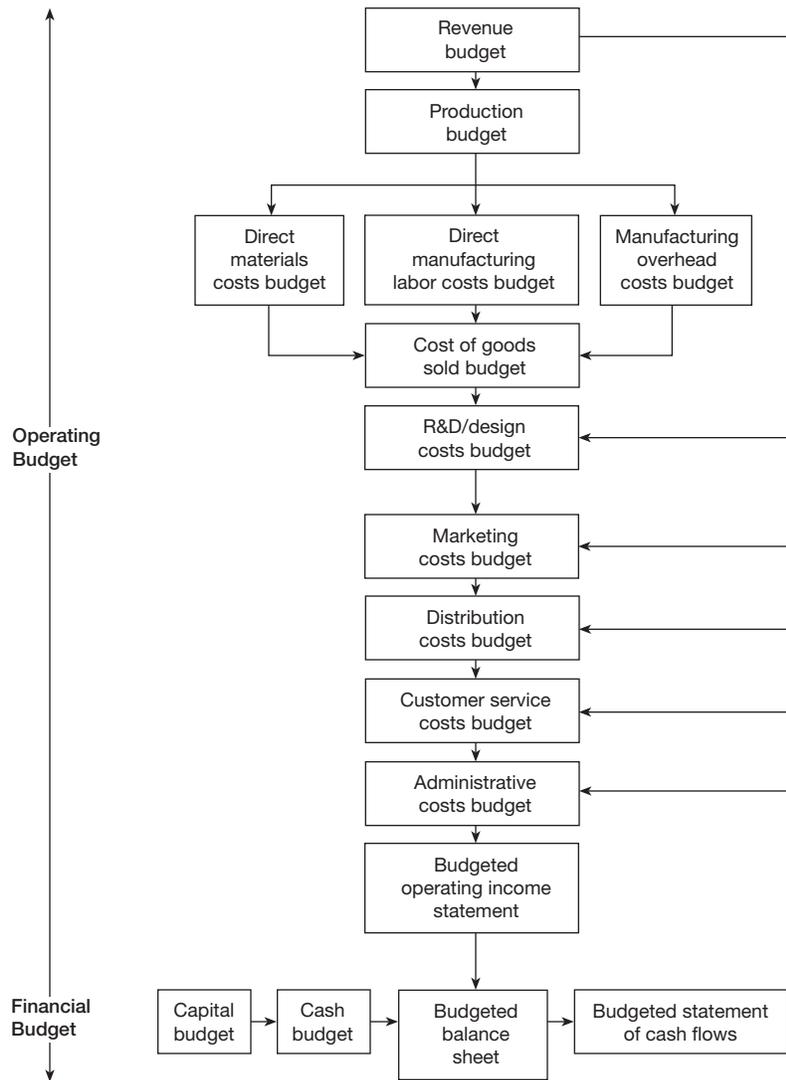
### **The Master Budget**

The *master budget* is the heart and soul of the budgeting process. It brings all the pieces together, incorporating the operating budget and the financial budget of an organization into one comprehensive picture. In other words, the master budget summarizes all the individual financial projections within an organization for a given period.

For a typical for-profit organization, the operating budget consists of the budgets from each *function*—such as research and development, design, production, marketing, distribution, and customer service—and provides the budgeted income statement. The financial budget includes the capital budget, the cash budget, the budgeted balance sheet, and the budgeted cash flows. The master budget must integrate both the operating budget and the financial budget through an iterative process during which information flows back and forth from each element of the master budget (see figure 13-1).

FIGURE 13-1

**Master Budget Flow Chart**



Source: HMM Budgeting. Adapted from Charles T. Horngren, George Foster, and Srikant M. Datar, *Cost Accounting* (New York: Prentice Hall, 2000).

Master budgeting goes hand-in-hand with strategic planning at the highest level. Using the organization's strategic goals as its foundation, the budget-building process is both chronological and iterative, moving back and forth, testing assumptions and options.

Before preparing a master budget, senior managers must ask these three important questions:

1. Do the tactical plans being considered support the larger and longer-term strategic goals of the organization?
2. Does the organization have, or have access to, the required resources—that is, the cash it needs to fund the activities throughout the immediate budget period?
3. Will the organization create enough value to attract adequate future resources—profit, loans, investors, etc.—to achieve its longer-term goals?

### **Setting Assumptions**

The first step in developing a budget is establishing a set of assumptions about the future. The assumptions that managers make will be directly affected by the answers to questions such as these:

- What are sales and marketing's expectations for unit sales and revenues from new and existing products?
- Are supplier prices anticipated to rise or fall?
- What will be the cost of the company's health-care plan for the coming year?
- If the unemployment rate is expected to decline, will the company need to raise salaries to ensure an adequate work force in a tight labor market?
- What will competitors do to gain market share?

Assumptions should be sought from the sources that have the best information. For example, top management has a clear view of the

strategic goals, and the finance group has records of past financial performance and future economic trends. Look to the human resource group for information on shifts in the labor market, and the sales representatives for the best information about sales prospects. Likewise, the purchasing department has the latest information about suppliers and price trends. Developing assumptions is a companywide endeavor in which communication and coordination play a key role.

### *Tips for Setting Assumptions*

- Use historical data as a starting point. Even when times are changing quickly, information about past performance can establish a base from which to begin.
- Trust your own experience. Make educated guesses where necessary about what is likely to happen in the future.
- Listen to your intuition. Even though you can't verify those gut feelings, you can take them into account.
- Conduct due diligence. Seek out the information you need. This may involve doing research, reading trade journals, collecting industry statistics, and so on. And don't forget that the Internet is a growing information resource.
- Talk with and listen to knowledgeable people. Discuss your ideas with team members, colleagues, mentors. Seek out industry participants, suppliers, concerned community leaders, and experts in the field. Engage in discussions with competitors.
- Learn when to be a risk taker and when to be conservative. In a volatile market, conservative assumptions may be the safest.
- Test your assumptions. If possible, try out your assumptions in small experiments before you accept them.

### Preparing the Operating Budget

An *operating budget* is nothing more than an agreed-upon pact between top management and other members of the management team. It is a target, not a forecast. It specifies revenues and costs for the coming period. These are expressed in a statement that resembles the income (or profit and loss) statement that every company generates. The essential difference is that we are building the statement from expected versus actual quantities. In a nutshell, the operating budget is structured as follows:

$$\text{Revenues} - (\text{Cost of Goods Sold} + \text{Sales, General, and Administrative Costs}) = \text{Operating Income}$$

We have divided the operating budget process into five simple steps.

**STEP 1: CALCULATE YOUR EXPECTED REVENUES** For the first step in preparing an operating budget, managers must apply some assumptions to forecast revenue growth (or decline). For our hypothetical for-profit company, Amalgamated Hat Rack, the managers of the Moose Head division translate their assumptions about revenue growth based on past performance and future expectations of sales for their products during the fiscal year (table 13-2).

If they take an incremental-budgeting approach, the managers will use the prior year's actual sales of \$1,228,100 as the base for developing their projections for the next year. If, on the other hand, they follow the zero-based budgeting method, they will make their sales projections for each model from the ground up, using forecasted economic data, predicted consumer behavior, and other information. These will take recent experience with customer behavior, economic forecasts, and other information into account.

Establishing projected revenue figures can create internal tensions. If managers are evaluated and rewarded on their achieving budgeted revenue targets, then they may be tempted to develop conservative revenue targets that will be easy to reach. This budgetary slack, or padding, provides a hedge for managers, making it more likely that actual revenues will be higher than budgeted revenues. With such results, the managers appear very effective.

TABLE 13 - 2

**Moose Head Division, Amalgamated Hat Rack, Year 1 Budget**

	Prior Year's Actual	Year 1 Budget	Rate of Change
<b>Sales by Model</b>			
Moose Antler Deluxe	\$201,000	\$205,000	2.0%
Moose Antler Standard	\$358,000	\$381,000	6.4%
Standard upright	\$515,500	\$556,000	7.9%
Electro-revolving	\$72,400	\$60,250	(16.8%)
Hall/wall model	<u>\$81,200</u>	<u>\$80,000</u>	<u>(1.5%)</u>
Total sales	\$1,228,100	\$1,282,250	4.4%
<b>Cost of Goods Sold</b>			
Direct labor	\$92,325	\$96,500	4.5%
Factory overhead	\$6,755	\$7,200	7.0%
Direct materials	<u>\$211,000</u>	<u>\$220,284</u>	<u>4.4%</u>
Total cost of goods sold	\$310,080	\$323,984	4.5%
<b>Marketing and Administrative Costs</b>			
Sales salaries	\$320,000	\$331,200	3.5%
Advertising expenses	\$145,000	\$151,000	4.1%
Miscellaneous selling expenses	\$4,200	\$3,900	(7.1%)
Administrative expenses	<u>\$92,000</u>	<u>\$94,500</u>	<u>2.7%</u>
Total SG&A	\$561,200	\$580,600	3.46%
<b>Operating Income</b>	\$355,820	\$377,666	6.14%

Source: HMM Budgeting.

Production constraints (the availability of qualified people for service firms and production capacity for manufacturers) may affect the revenue budget. If, for example, sales demand is expected to exceed the company's ability to manufacture and distribute, then the revenue budget must be adjusted to match the production constraints rather

than the actual demands of the market. Otherwise, the budget must add funds for building the capacity needed to meet demand.

**STEP 2: CALCULATE THE EXPECTED COST OF GOODS SOLD**

Once the revenue budget has been established, managers can then develop the budget for the cost of goods sold. The total number of units to be produced will form the basis for determining the direct costs, including labor and materials. In the same way, the Moose Head division calculates the indirect factory costs or overhead as part of the cost of goods sold budget. Remember here that sales are budgeted to rise 4.4 percent to \$1,282,250.

**STEP 3: CALCULATE THE EXPECTED OTHER COSTS** Other non-production costs include costs generated by research and development, product design, marketing, distribution, customer service, and administration. For the Moose Head division, only various sales-related and administrative expenses make up the other-costs budget.

**STEP 4: CALCULATE THE EXPECTED OPERATING INCOME**

Finally, you can calculate the budgeted income statement. The difference between expected sales and expected costs results in the expected operating income. The managers of the Moose Head division provide their expected income statement to the top management of Amalgamated Hat Rack so that top management, in turn, can determine how the Moose Head division's budget fits with the company's master budget and overall strategic goals.

**STEP 5: DEVELOP ALTERNATIVE SCENARIOS** Testing different scenarios is the "what if" iterative process of budgeting. How will a change in one area affect the expected outcome? What if we increase advertising? How much would that increase sales? What if the Moose Head employees decide to go on strike? How can we incorporate that risk into the budget?

For example, Amalgamated's management may decide to shift its strategic emphasis from increasing profits to developing a new product line in the Moose Head division. Moose Head managers would then develop another set of budget figures indicating research and development costs that would reduce the current budgeted operating

income. Alternatively, Moose Head managers could decide to accept bids from a new group of suppliers that would in turn reduce materials expenditures and increase the budgeted operating income.

### **Creating Financial Budgets**

Once managers of operations have developed their operating budgets, or expected income statements, financial managers then plan for the capital required to support those operating budgets. You can't anticipate a 10 percent increase in sales, for example, without creating a parallel plan for the extra working capital and other inputs that will be required if the anticipated increase is realized. Three other budgets are developed:

1. A cash budget that includes estimated cash from operations as well as other sources of cash (accounts payable, borrowing, or equity). The cash budget predicts and plans for the level and timing of cash inflow and outflow.
2. An operating asset investment plan that ensures that adequate capital will be available for assets such as inventory and accounts receivable.
3. A capital investment plan that budgets for proposed investments in long-term productive assets such as property, plant, and equipment expenditures and extended R&D programs.

These financial plans support the strategic objectives of the organization, planning for both the near-term (cash budget) and the long-term (capital investment plan) financial needs. They are expressed in forecasted (or pro forma) balance sheet and cash flow statements to form a complete picture of the organization's expected financial position during the budget period.

The *cash budget* is particularly important for the firm's financial managers since it indicates shortages or surpluses of cash in each period (usually months). No business can afford a shortfall of cash, as the company would be unable to pay bills as they come due. The cash budget shown in table 13-3 is one company's simplified cash budget for a five-month period (January through May). Notice that it identifies all

cash inflows and outflows for each month. The ending cash balance of a given month becomes the beginning balance for the next month. Thus, December's \$220 ending balance becomes January's beginning cash balance. By adding the monthly surplus (or deficit) and the beginning cash balance, the budget finds the ending balance for the month. A glance across the bottom line indicates when the enterprise will encounter a cash shortfall, as happens here in April and becomes

TABLE 13 - 3

**A Simplified Cash Budget (in Thousands of Dollars)**

	Dec.	Jan.	Feb.	March	April	May
<b>Cash Inflows</b>						
Sales revenues		1,100	875	600	500	600
Other revenues		250	225	200	200	0
Interest income			34	34	34	
Total inflows		1,350	1,134	834	734	600
<b>Cash Outflows</b>						
Purchases		400	380	320	300	350
Salaries		200	200	200	200	200
Hourly wages		170	165	150	195	220
Health-care payments		20	20	20	20	20
Retirement contributions		25	23	25	23	25
Interest payments		15	15	15	15	15
Taxes		305	295	270	260	240
Utilities		20	18	15	20	25
Total cash outflows		1,155	1,116	1,015	1,033	1,095
<b>Cash Surplus or Deficit</b>		195	18	(181)	(299)	(495)
<b>Beginning Balance</b>		220	415	433	252	(47)
<b>Ending Balance</b>	220	415	433	252	(47)	(542)

larger in May. Companies whose businesses are heavily seasonal—agricultural producers, garment makers, ski manufacturers, and so forth—routinely experience wide swings in ending cash balances.

During months of surplus, financial managers store cash in interest-bearing money market instruments such as short-term bank certificates of deposit (CDs), commercial paper, and U.S. Treasury bills. As surpluses disappear, they convert those instruments back into cash and draw on lines of credit and short-term bank loans to eliminate any cash deficits. As you can see in table 13-3, managers must begin drawing on past surpluses in March. The surpluses have evaporated by April, forcing them to seek outside sources of cash. Seasonal and cyclical businesses use periods of heavy cash inflows to pay off their lines of credit and to build money market positions in anticipation of the next cash-consuming cycle.

Here are the steps to follow in building your own cash budget:

1. **Add receipts.** Determine the expected receipts—collections from customers and other sources—that will flow into the cash account each period. Cash collections may vary during the budget period. For example, many retail stores expect to receive most of their receipts during holiday seasons.
2. **Deduct disbursements.** Based on expected activity, calculate how much cash will be required to cover disbursements—cash payouts—during the period. Disbursements could include payment for materials, payroll, taxes due, and so on. Some of these expenditures may be evenly distributed throughout the budget period, but some, such as payroll and materials costs, may fluctuate as part of the production process.
3. **Calculate the cash surplus or deficiency.** To calculate the cash surplus or deficiency for a period, subtract the disbursements from the sum of the beginning cash balance and the receipts expected during that period.
4. **Add the beginning cash balance.** The beginning cash balance is the ending balance from the previous period. By adding them together, you have a new ending balance.

5. **Determine financing needed.** The ending balance will be positive or negative. A positive balance indicates that you have more than enough cash to cover operations during that period. A negative balance indicates that the company must develop a plan for financing the shortfall from other sources, such as a bank loan. Repayment of any such loan must be reflected among the cash outflows of subsequent budget periods.

### **The Human Side of Budgeting**

To some degree, preparing a budget is a matter of crunching numbers, a process being left more and more to financial modeling software, computers, and technology. But behind those numbers are real people like you—people who make assumptions, people who think about future situations, people who understand the idiosyncrasies of customers and competitors. Ideally, everyone involved in the budget process has the same goal in mind—achieving the organization’s strategic objectives.

What some may see as a straightforward, even mechanical, process, however, is in reality complicated by genuine disagreements over assumptions about future trends and events, by conflicting needs, and by individual agendas that overshadow the larger corporate good. For this reason, the budget process can be defined as a series of negotiations between disparate interests. Top management wants the highest possible economic value in terms of profit. Middle management may have contrary needs, such as new equipment or new personnel. The human element is what can make the budget process so engaging and, at times, so frustrating.

### **Top-Down Versus Participatory Budgeting**

Top-down budgeting describes the process whereby upper management sets budget goals—revenue, profit, and so on—and imposes these goals on the rest of the organization. Thus, for example, the CEO of Amalgamated Hat Rack gives Moose Head manager Claude Cervidés the goal of attaining an operating profit—or earnings before interest and taxes—of \$400,000 for the upcoming fiscal year. It’s then up to

Claude to shape his operating budget with \$400,000 as the operating profit target.

Top-down budgeting has many advantages. Since senior management has a clearer concept of the organization's strategic objectives, top-down budgeting ensures the following benefits for senior management:

- Budget goals that reflect management's larger strategic objectives
- Better coordination of the budget requirements for all the elements of the organization
- The discouragement of "padding" managers' unit budgets
- High goals that challenge managers to stretch

Top-down budgeting has two main disadvantages. First, upper management may be out of touch with the realities of the individual divisions' production processes or markets. As a result, the goals they set may be inappropriate or unattainable. Second, middle managers may feel left out of the decision-making process and, consciously or unconsciously, may not fully participate in achieving the budgeted goals.

With participatory budgeting, the people responsible for achieving the budget goals are included in goal setting. Cervidés, for instance, would develop the budget for his own division, with the active participation of the heads of purchasing, human resources, production, marketing, and administration. Once his team had completed the budget, Cervidés would send it to Amalgamated Hat Rack's senior management. After review and possible feedback to Cervidés, they would incorporate Moose Head's budget, along with all the other budgets, into the master budget.

One advantage of participatory budgeting is that the people closest to the line activities—people who presumably have the best information—make the budget decisions. Also, participants in this type of budget process are more likely to make the extra effort to achieve the budgeted goals. The disadvantages of participatory budgeting are also twofold. First, the people closest to the line activities may not see the larger strategic picture. Second, if performance evaluations are tied to budget achievement, then the managers will have an incentive to pad their budgets either by underestimating revenues or by overestimating costs.

### *Tips for Negotiating Your Team's Budget*

Effective budgeting requires a certain organizational savvy. Here are some tips for dealing with organizational issues that surround the budgeting process:

- Understand your organization's budgeting process. What guidelines must you follow? What is the timing of the budget process? How is the budget used in the organization?
- Communicate often with the controller or finance person in your department. Ask questions about points you don't understand. Get that person's advice about the assumptions your team is making.
- Know what real concerns are driving the people making the decisions about your budget. Be sure to address those concerns.
- Get buy-in from the decision makers. Spend time educating the finance person or decision maker about your area of the business. This will lay the groundwork for implementing changes later.
- Understand each line item in the budget you're working on. If you don't know what something means or where a number comes from, find out yourself. Walk the floor. Talk to people on the line.
- Have an ongoing discussion with your team throughout the budget period. The more you plan, the more you will be able to respond to unplanned contingencies.
- Avoid unpleasant surprises. As the numbers become available, compare actual figures to the budgeted amounts. If there is a significant or an unexpected variance, find out why. And be sure to notify the finance person who needs to know.

Iterative budgeting is an attempt to combine the best of both top-down and participatory budgeting. In the initial step, senior management provides the unit heads with a clear understanding of the organization's strategic goals. The unit heads then work with their teams to develop operating budgets that incorporate both their own tactical goals and the organization's larger strategic goals. After the unit heads send their budget proposals to upper management, upper management reviews the individual budgets and may ask for adjustments. And the negotiating process continues back and forth until a final master budget is achieved. The key to success in this and other budgeting processes is communication. Senior management has to communicate strategic goals in a way that makes sense. In turn, the unit heads communicate their resource needs and concerns when presenting budget proposals to management. All participants in the budget process have an obligation to listen to the various and sometimes conflicting positions.

### **Slack**

Budgetary slack, or padding, occurs when managers believe they are going to be evaluated on their performance relative to the budget. To ensure that they will achieve their budgeted figures and be rewarded, they budget revenues conservatively or exaggerate anticipated costs, or do both. Both actions make the budget "game" easier to win. Budgetary slack also provides these managers with a hedge against unexpected problems, reducing the risk that they will fail to "make their numbers." It's an old game that managers at all levels learn to play. The big losers, of course, are the owners of the business.

### **What-If Scenarios and Sensitivity Analysis**

Budgets are only as good as the future assumptions on which they are based. But assumptions are often wrong. We assume that customer A will purchase ten thousand units from us next year—and we have the sales agreement to back it up. But if customer A experiences a major business collapse, then that sales agreement isn't worth much.

We assume that our energy bills will increase at roughly the current rate of inflation. But guess what? A cold winter and huge demand for energy could push prices through the roof.

Sensitivity analysis is an approach to dealing with assumptions and alternative options. As a budgetary tool, this analysis can greatly enhance the value of budgets as instruments for planning, feedback, and course correction. A sensitivity analysis applies a what-if situation to

### *Tips for Effective Budgeting*

If you want to use budgeting as a planning and team-building tool, you need to develop a game plan. Even if you recently finished this year's budget, it's not too early to start thinking about next year. Here are a few points to keep in mind:

- If you're a new manager, become familiar with your company's budgeting process.
- Spend time learning and understanding company priorities, as well as helping your team understand them.
- Make sure that any request for funds is in sync with the objectives set by senior management.
- Determine your unit's cost per output, however defined.
- Ask for volunteers to research line items. This will make your job easier and give subordinates opportunities to learn about the budgeting process.
- If you need to reduce costs, identify the activities that add value for the customer and those that don't. Analyze the cost of each, and begin by cutting non-value-added activities.
- Show how your budget request will generate income for the company. In other words, your budget should not be so much a request for funds as a proposal showing how you will help the company realize its goals.

TABLE 13 - 4

**Moose Head Division, Amalgamated Hat Rack, Sensitivity Analysis of Several Options**

What-If Scenarios	Units Sold	Direct Materials Cost	Operating Income
Budget model	21,400	\$214,000	\$383,950
Scenario 1: increase unit sales 10%	23,540	\$235,000	\$422,730
Scenario 2: decrease unit sales 5%	20,330	\$203,300	\$360,900
Scenario 3: decrease materials cost 5%	21,400	\$203,300	\$398,700

Source: HMM Budgeting.

the budget model to see the effect of the potential change on the original data. For example, what if the cost of materials rises 5 percent, or what if sales rise 10 percent? Software packages for financial planning are available and commonly used to perform these calculations, giving managers a powerful tool to estimate the costs and benefits of various options and possibilities.

For example, if the Moose Head division wanted to test its assumptions with what-if scenarios, it could determine the effect of some likely alternative scenarios (table 13-4). Given the results of these analyses, Claude Cervidés may decide to direct his efforts toward lowering materials costs to achieve the best bottom-line result.

### Summing Up

- The four basic functions of budgets are planning, coordinating and communicating, monitoring progress, and evaluating performance.
- Budgets help an organization move forward and keep on track. And they make the time and trouble associated with budgeting worthwhile.

- The master budget brings together operating and cash budgets and various financial projections into a comprehensive picture.
- What-if scenarios and sensitivity analysis can help budget makers predict the effects of specific changes in any important assumptions built in to the budget.

# *Notes*

## **Chapter 13**

1. This chapter is adapted from Harvard ManageMentor, an online product of Harvard Business School Publishing.

## **Harvard Business Essentials**

### *The New Manager's Guide and Mentor*

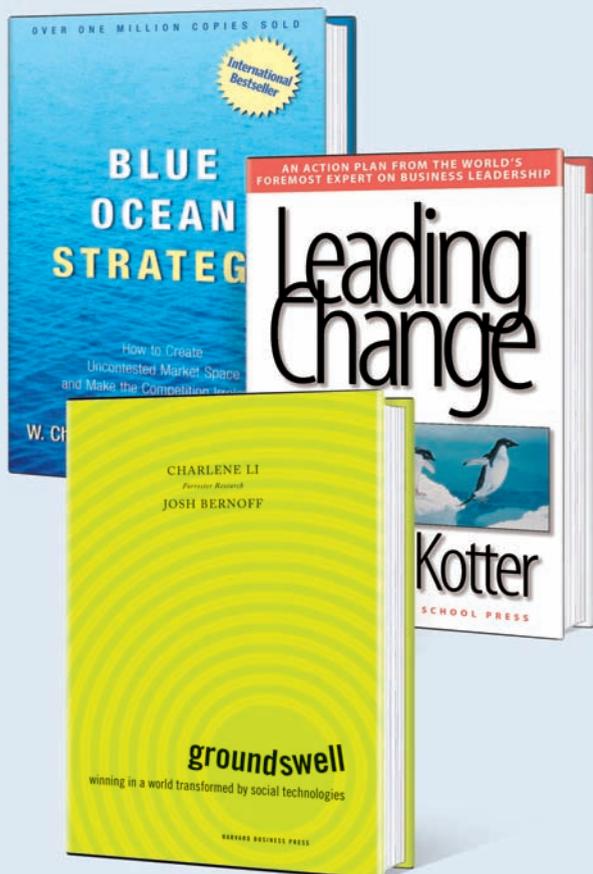
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