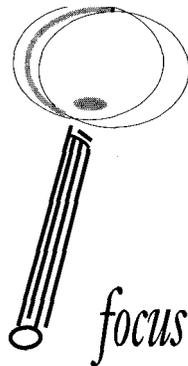


1

The Role of Budgeting in Management Planning and Control



Learning Objectives

By the end of this chapter, you should be able to:

- Describe how budgeting relates to the planning and controlling functions of management.
- Explain the relationship between budgeting and strategic planning.
- Define *chart of accounts*, *responsibility reporting*, and *flexible budgets*.
- List and describe the phases of budgeting.
- Describe budgetary slack.

Effective budgeting systems can help managers perform their major management functions. Improperly conceived budgeting procedures, however, can be very frustrating. Consider the frustration of individuals who have been subjected to experiences like the following:

- After downsizing, a department has far more work than before, but budgeted expenses are left unchanged.
- Despite constructive efforts at efficient management, a manager is ordered to effect a 10 percent across-the-board cut in budgeted expenses with the condition that quality not be impaired.
- In spite of a straightforward request for clarification of cost variations from budget, a manager continues to receive performance reports that pinpoint neither the causes of the variations nor the persons responsible for controlling them.
- Although sales are increased by innovations, substantial increases in allocated corporate overhead expenses wipe out any prospect of profit gains.

- Although an executive asks for information on the financial impact of alternative planning assumptions, her staff merely reshuffles myriads of historical cost averages.

These examples are representative, and they are rooted in a common cause: the lack of effective systematic budgeting. A budgeting process based on sound concepts of planning and control can help companies create value.

BUDGETING AND THE MANAGEMENT PROCESS

A *budget* is defined as management's quantitative expression of plans for a forthcoming period. Budgets are prepared at various levels of an organization. The *master budget* is defined as the overall financial plan for the period, which reflects the organization's goals and objectives. The master budget includes operating and financial budgets. Operating budgets show the company's planned sales and operating expenses. Financial budgets reflect financing plans such as borrowing, leasing, and cash management.

Budgeting, when done properly, can serve as a planning and controlling system. The company's goals and performance objectives are documented in financial terms. Once formulated, these plans are used throughout the year. Monthly performance reports compare budgeted results with actual results. To control operations, management can examine the performance reports and take necessary corrective actions.

The role that effective budgeting plays in the management of a business is best understood when it is related to the fundamentals of management. The many existing definitions of business management can be expressed in terms of five major functions: planning, organizing, staffing, directing, and controlling. Management must first plan. The plan is executed by organizing, staffing, and directing operations. To control operations, management must institute appropriate techniques of observation and reporting to determine how actual results compare to plans. Budgeting is concerned primarily with the planning and controlling functions of management.

Planning

Planning is future-oriented. A plan specifies in some form what management wants to do. Management has certain variables that it can control. Some of these variables are financial resources, plant and equipment, products, production methods, and human resources. Planning involves making forecasts and assumptions about the organization's external environment, which is uncontrollable. Examples of uncontrollable factors in the external environment are government actions, consumer spending, interest rates, and actions of competitors. Because management cannot manipulate external environmental variables, it must confine its plans to controllable factors. Thus a plan consists of what management is going to do with the variables it can control.

**Exhibit 1-1****Hierarchy of Goals: Examples from Top to Bottom****CORPORATE LEVEL**

The chief executive officer is directly responsible for the following:

- A 25 percent return on investment
- Entering or acquiring two new businesses related to the company's current markets
- Reporting earnings per share growth between 12 percent and 16 percent

STRATEGIC BUSINESS UNIT LEVEL

The strategic business unit manager is directly responsible for the following:

- Increasing market share by 3 percent
- Introducing five new products
- Acquiring computer-integrated manufacturing technologies

FUNCTIONAL LEVEL

The production manager is directly responsible for the following:

- Meeting all production quotas
- Increasing productivity by 3 percent
- Implementing computer-integrated manufacturing technologies

The producing department supervisor is directly responsible for the following:

- Meeting all production quotas
 - Reducing absenteeism
 - Decreasing spoilage by 2 percent
-

Some companies develop strategic and long-run plans covering five or more years. Others confine the formalized planning horizon to one year.

Goals

The annual planning process begins with the establishment of goals. These goals may be stated in terms of profit, return on investment, product leadership, market share, product diversification, or simply survival. In practice, there are different levels of goals. General goals, which are directional in nature, usually are set first. Examples of general goals are growth of the company, quality leadership, being the lowest-cost producer, and maintenance of the current level of service to customers.

Larger organizations usually develop a hierarchy of goals. Corporate goals are set by top management. The degree of participation in this process varies by company. Goals then are set at successively lower levels in the organization. These subgoals are set in harmony with upper-level goals. They help lower-level managers visualize how their efforts contribute to the accomplishment of corporate goals. Exhibit 1-1 illustrates the hierarchy of goals concept.

Performance Objectives

Performance objectives, or targets, are an excellent means of implementing subgoals. While subgoals are still general in nature and measurable in broad terms, performance objectives are specific and action-oriented. That is, performance objectives can be measured in specific terms. They have a time dimension. At a rather broad level, a performance objective might be to earn \$300,000 in the first quarter of next year. At a lower level, the objective might be to have a maximum labor cost per unit of \$2 during the first quarter. At an even lower level, the performance objective might be to have a maximum of three defective units produced per thousand. In practice, performance objectives can be associated with managers at different levels in the organization, which should help the organization attain its overall goals.

Management can use a budget to state formally its goals and performance objectives in financial terms for a specific time period. A budget requires management to state its plans in a common denominator, dollars. For instance, the plans of the marketing department will be reduced to a sales budget and a marketing expense budget, which are developed simultaneously. Similarly, all departments within the organization must state their plans in financial terms.

Integration and Coordination

Preparing the master budget requires the coordination of all organizational activities. It integrates revenue plans, planned expenditures, asset requirements, and financing needs. It integrates the planned activities of all managers within the organization. This coordination function is one of the major benefits of a budget. If coordination is done effectively, it can bring the plans of managers into congruence with the organization's objectives.

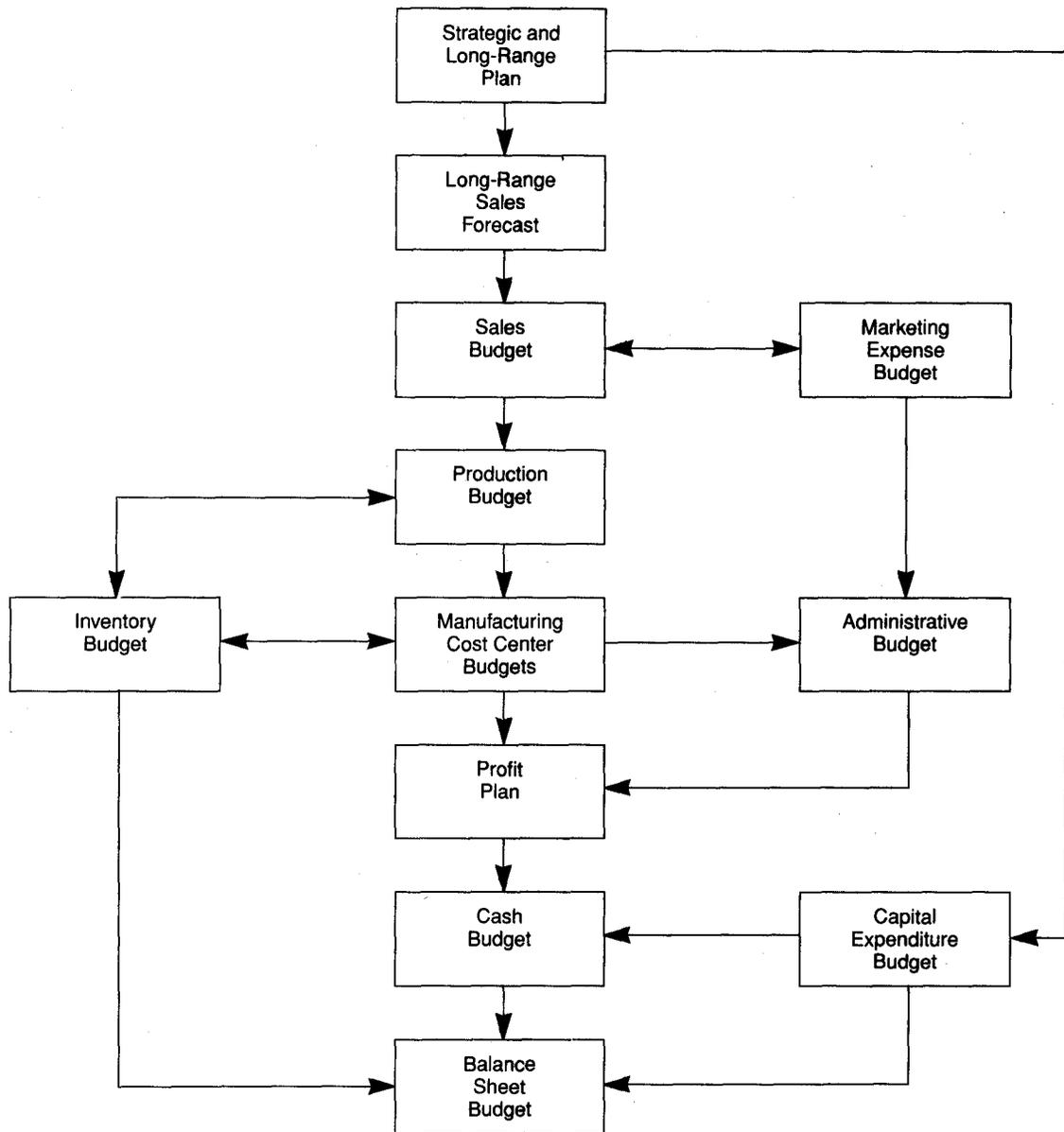
The integration and coordination needed in budget preparation are illustrated in the flowchart shown in Exhibit 1-2. A strategic or long-range plan will be translated into a long-range sales forecast covering five or more years. The sales budget is the first component of the master budget, and it is integrated with the marketing expense budget. The production budget, which sets targets for units to be produced, depends on the levels of sales activity and inventory. It determines the budgeted expenses in the manufacturing cost centers and administrative departments.

Format

The master budget takes the form of pro forma financial statements, which show budgeted amounts. The profit plan is shown in a budgeted income statement. This operational budget incorporates planned sales and expenses. Supporting detailed expense budget schedules show budgeted expenses by department. The master budget shows budgeted income statements on a monthly basis, as illustrated in Exhibit 1-3. Budgeted sales and expenses will fluctuate for various reasons, including seasonal factors.

While the primary focus of the master budget is the profit plan, financial budgets also are critical. The budgeted balance sheet shows the planned assets and related financing (liabilities and equity) at the end of each month

E Exhibit 1-2 Budget Preparation Flowchart



in the budget period. In Exhibit 1-3, the budgeted balance sheet amounts fluctuate with the budgeted income statement. For example, as budgeted sales increase from January to June, budgeted accounts receivable increase. This makes sense because credit sales result in accounts receivable. Budgeted inventory also increases from January to June because higher inventory is needed to support higher sales. Financing plans are reflected in the liabilities and equity sections, where planned short-term debt and accounts payable increase from January to June to finance the planned increase in accounts



Exhibit 1-3

Master Budget Format

A. BUDGETED INCOME STATEMENTS FOR FISCAL YEAR ENDED DECEMBER 31, 1995

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Net Sales	\$384	\$448	\$576	\$640	\$672	\$800	\$768	\$512	\$512	\$448	\$448	\$192	\$6,400
Cost of Sales	193	225	290	322	338	403	386	258	258	225	225	97	3,220
Gross profit	191	223	286	318	334	397	382	254	254	223	223	95	3,180
Selling and administrative	161	165	174	178	180	188	186	169	169	165	165	150	2,050
Net income before taxes	30	58	112	140	154	209	196	85	85	58	58	-55	1,130
Income taxes	12	23	45	56	62	84	78	34	34	23	23	-22	452
Net income	18	35	67	84	92	125	118	51	51	35	35	(33)	678
Dividends			80			80		80				80	300
Retained earnings change	\$ 18	\$ 35	\$(13)	\$ 84	\$ 92	\$ 45	\$118	\$ 51	\$(29)	\$ 35	\$ 35	\$(113)	\$ 378

Exhibit continued on next page.

Exhibit 1-3: continued from previous page.

B. BUDGETED BALANCE SHEET FOR 1995

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Assets												
Current Assets:												
Cash and equivalents	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220	\$ 220
Accounts receivable	768	896	1,152	1,280	1,344	1,600	1,536	1,024	1,024	896	896	384
Inventory	338	435	483	507	605	579	387	387	338	338	146	287
Total current assets	<u>1,326</u>	<u>1,551</u>	<u>1,855</u>	<u>2,007</u>	<u>2,169</u>	<u>2,399</u>	<u>2,143</u>	<u>1,631</u>	<u>1,582</u>	<u>1,454</u>	<u>1,262</u>	<u>891</u>
Net plant and equipment	3,200	3,206	3,212	3,218	3,224	3,230	3,236	3,242	3,248	3,554	3,561	3,568
Total assets	<u>\$4,526</u>	<u>\$4,757</u>	<u>\$5,067</u>	<u>\$5,225</u>	<u>\$5,393</u>	<u>\$5,629</u>	<u>\$5,379</u>	<u>\$4,873</u>	<u>\$4,830</u>	<u>\$5,008</u>	<u>\$4,823</u>	<u>\$4,459</u>
Liabilities												
Current liabilities:												
Short-term debt	\$ 469	\$ 587	\$ 757	\$ 754	\$ 792	\$ 828	\$ 499	\$ 250	\$ 236	\$ 355	\$ 135	\$ 193
Accounts payable	461	538	691	768	806	960	922	614	614	538	538	230
Accrued expenses and taxes	6	7	7	7	7	8	7	7	7	7	7	6
Total current liabilities	<u>936</u>	<u>1,132</u>	<u>1,455</u>	<u>1,529</u>	<u>1,605</u>	<u>1,796</u>	<u>1,428</u>	<u>871</u>	<u>857</u>	<u>900</u>	<u>680</u>	<u>429</u>
Long-term debt	700	700	700	700	700	700	700	700	700	800	800	800
Total liabilities	<u>1,636</u>	<u>1,832</u>	<u>2,155</u>	<u>2,229</u>	<u>2,305</u>	<u>2,496</u>	<u>2,128</u>	<u>1,571</u>	<u>1,557</u>	<u>1,700</u>	<u>1,480</u>	<u>1,229</u>
Stockholders' equity:												
Common stock	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Retained earnings	890	925	912	996	1,088	1,133	1,251	1,302	1,273	1,308	1,343	1,230
Total stockholders' equity	<u>2,890</u>	<u>2,925</u>	<u>2,912</u>	<u>2,996</u>	<u>3,088</u>	<u>3,133</u>	<u>3,251</u>	<u>3,302</u>	<u>3,273</u>	<u>3,308</u>	<u>3,343</u>	<u>3,230</u>
Total liabilities and stockholders' equity	<u>\$4,526</u>	<u>\$4,757</u>	<u>\$5,067</u>	<u>\$5,225</u>	<u>\$5,393</u>	<u>\$5,629</u>	<u>\$5,379</u>	<u>\$4,873</u>	<u>\$4,830</u>	<u>\$5,008</u>	<u>\$4,823</u>	<u>\$4,459</u>

receivable and inventory. Long-term debt is scheduled to increase in October. The cash budget reflects the planned net income effects on cash flow and the cash requirements of the capital expenditures budget.

Documentation

The assumptions and specific plans reflected in the master budget should be documented, a key element of the budgeting process. A major benefit of systematic budgeting is that it forces systematic planning. Without this documentation requirement, managers can shortcut the planning process. For example, a manager could budget next year's expenses by simply increasing last year's budget by some percentage that seems fair. A documentation requirement forces the manager to provide a reason why the budget should be increased.

Controlling

Controlling involves monitoring the implementation of the plan and taking corrective action as needed. The control process is continuous because it is impossible to predict the timing and impact of external environmental factors or the effects of planned actions. Control is based on the use of feedback about the activity being controlled. All control systems must have some kind of feedback mechanism. In the case of a heating system, for example, the thermostat is the control device that obtains feedback from temperature readings. In a similar manner, managers control operations by getting feedback from many sources. To some extent, managers directly observe what is happening. In addition, they rely on verbal and written reports, which they receive daily, weekly, monthly, annually, irregularly, or on demand. Using this feedback, corrective action can be taken when necessary.

Because budgets are a financial statement of plans, they are linked to the control system. After the budget is set, the accounting system provides information for managers to monitor actual financial performance. The actual performance is compared with the budget plan to identify any deviations. Following the concept of management by exception, the manager responsible for the activity in question will be notified of significant deviations. The deviations may signal a need for corrective action if, indeed, any factors under the manager's control can be modified to achieve the desired result.

Budgeting Is Not Forecasting

Contrary to some views, budgeting is not a financial function performed by the staff of budget departments or by accountants. Such people merely record and report plans and comparisons of operation results with those plans. They help management analyze, interpret, and react. Budgeting is not forecasting. Forecasting involves predicting the outcome of events rather than planning for a result and controlling to maximize the chances of achieving that result. Many executives complain about the lack of effectiveness of budgets; but their "budgets" are little more than forecasts, all too often prepared by the finance department rather than by operating management. The

result is a superficial set of figures that does not help the organization to achieve its goal.

The forecasting approach to budgeting can be illustrated by the following example. During the month of October, the president of a small company calls the controller and suggests that it is time to begin to think about the budget for the coming year. The controller generally agrees but bemoans the fact that she has many other pressing problems. Eventually, she gets around to thinking about and working on the new budget. One day she finds herself in the president's office with summary financial statements showing what the results for the current year will be in relation to the budget adopted about a year ago and with some ideas as to how this trend will continue into the coming year. The president has some definite ideas about the state of the economy and, in particular, how the business is doing. In addition to having an opinion about sales volume, the president and others in the business have an idea of the trend in costs as a result of major union negotiations, price level changes, and so on. The president concludes the meeting after determining what percentages are to be used to adjust the current year's figures. Out of this process evolves a forecast of the results for the coming year's operations.

This procedure is forecasting, not budgeting. All levels of management must participate in an effective budgeting system. Only then can the potential benefits of coordinating and controlling operations be realized. The nature of the organization's business should determine how tight the budget is viewed and used. Very tight budgets can be used for mature companies and mature business processes. New companies and new processes are less understood and predictable, and tight budgets are not practical.

LONG-AND SHORT-RANGE PLANNING

The planning phase of budgeting consists of work that, generally, must be done in the last half of the year preceding the budget year in order to provide the framework for budget preparation. In this period, an analysis is made of previous experience, the state of the economy, and company objectives. This analysis leads to the development of ground rules set by the president for the preparation of the budget for the next fiscal year.

The chief executive officer (CEO) usually is a key participant in the budget process. Ordinarily, the success or failure of the budget plan depends on the CEO's degree of involvement. Too many people believe that a competent budget director is the only requirement for success. They are wrong. All chief executives have plans for the operation of their businesses. The budget system is the means by which they can formalize and publish such plans and observe the performance of their line managers in carrying them out.

Managers constantly concern themselves with trends of the economy and of the industry. The financial pages of most publications contain forecasts of economists, polls of business opinions, and surveys of past performance that help set the mood for the next year's budgeting. In addition, a host of reports and publications put out by Standard & Poor's, the Bureau of the Census, the

Federal Reserve, and many others are a great aid in assessing the economic environment. All kinds of databases are available on CD-ROM and by telecommunications. The number of databases that can be accessed on the Internet is expanding every month. A listing of some databases is given in the appendix.

The long-range plan identifies problems, opportunities, turning points as they relate to operations, capital expenditures, and long-term financing. Typically, the long-range plan is documented in the corporate financial plan and related reports. Most managements have found that it is not sufficient to face the problems of a business on a day-to-day basis or even on a year-to-year basis; accordingly, they try to plan at least five years in advance. Generally, such planning involves a projection of the total market for the company's products. An assessment of the company's share of the market typically is based on historical performance and management objectives.

Many areas can be explored with long-range planning. Some planning group activities might include the following:

- Develop the company's mission, grand strategy, goals, and performance objectives.
- Research diverse opportunities for growth.
- Develop sound planning throughout the organization.
- Evaluate operating results and compare them with the rest of the industry.
- Encourage coordination and cooperation throughout the organization.
- Force the consideration of alternatives (for example, reengineering business processes).
- Develop methods for evaluating planning performance.
- Develop ways to shorten decision times.
- Force the consideration of capital requirements.
- Evaluate means for adopting new information technologies.

Organization

A variety of approaches can be used to perform long- and short-range planning. Depending on the size and complexity of the business, the planning can be done by the CEO, the CEO's staff, committees, or separate departments. In any event, for long-range planning to be meaningful and effective, top management's dedication and support are absolutely essential.

The committee approach is used by many companies. One of the difficulties with this approach is the selection of committee members. Members should be employees who are intimately familiar with the details of the business, such as line and staff managers who are involved in the actual operation of the business. It is difficult to obtain the time of these people for long-range planning, however, unless they can be freed temporarily from day-to-day operations. It is here that top management must apply its full support and dedication to the long-range planning concept. Examples of three possible committee approaches are as follows:

- The CEO appoints a senior vice president as chairperson, who in turn selects six members from the subordinates of the other vice presidents. An outside consultant also is selected as a committee member.

- The CEO appoints the highest-ranked vice president as chairperson. The vice president forms a twelve-person committee, all of vice presidential rank. Subcommittees are formed, and the twelve-member board becomes a review committee evaluating the reports from the subcommittees.
- In a company that is organized by strategic business units, the CEO appoints each division manager as the chairperson of the long-range planning board for his or her division. The division manager in turn sets up his or her own committee, but the responsibility for the long-range planning lies with the division manager.

Regardless of the approach used, the CEO is the key figure in the final analysis. He or she must review the long-range plans and decide whether or not they are adequate.

Establishing Goals

The success or failure of planning is determined by the policies adopted by the top executives—generally, the CEO or board of directors. Company goals must be established in a number of important areas, such as the following:

- *Products.* To change product mix produced, such as the change from a wide range of product lines to a core of fewer products that reflect the company's core competencies.
- *Production.* To change the character of production means by redesigning methods and activities.
- *Marketing.* To change marketing policy by determining the share of market desired, identifying new market areas (such as overseas markets), and changing distribution methods.
- *Advertising.* To determine what media will be used and what resources will be allocated to each.
- *Research and development.* To determine the amount to be spent on research and development for a new or improved product.
- *Company size.* To determine the size and rate of expansion of the business. The extent to which expansion will be financed from internally generated funds, equity, or debt also should be determined. Conversely, downsizing may be best.
- *Profit.* To determine the profit level and return on investment level desired.
- *Shareholder value.* To create shareholder value over the long run.

The company also might develop a hierarchy of goals.

Goal Establishment in Practice

The sales forecast of a component manufacturer shows that the market will continue to grow at a fast rate. The production plan indicates that the sales increase can be handled easily. The decision is made to engage in a major new product development, which will involve an extensive market research effort and the acquisition of new technical capabilities.

A manufacturer of military equipment foresees a decline in the demand for military products and decides to increase the commercial side of its business to more than 50 percent. Projections indicate an expanding market for consumer and industrial electronics. A financial projection shows large capital requirements, and labor force projections indicate that considerable new expertise will be required. The decision is made to acquire a company that produces consumer products and to operate it as a separate division.

A personal computer manufacturer projects a very encouraging marketing plan. Growth is limited only by capital. The company stock was very well received in an initial public offering and carried a high price-to-earnings ratio. The decision is made to have another common stock issue in a future year.

Strategic Planning

A discussion of long-range planning would be incomplete without considering strategic planning, even though some management experts believe that strategic planning is not very common. Strategic planning is defined in this course as the process of actively planning the future direction of the organization by adopting realistic goals and programs for the corporation and its strategic business units in relation to its environment. It involves short-, intermediate-, and long-range questions. It integrates short- and long-range planning. Strategic actions taken today will affect the organization's competitive position in the future.

The strategic plan states the company's mission, or basic purpose. Fundamental strategies aimed at attaining the mission are stated. Strategic thinking typically is directed at achieving a competitive advantage. A company does not need a strategic plan to have a long-range plan.

PERFORMANCE MEASURES

As stated earlier, the desired profit level and return on investment level are commonly established planning goals. The basic economic mission is to earn an acceptable return on investment over the long run. The profit earned must provide a sufficient return on the capital employed to satisfy shareholders. If the company's strategy is growth, profits must provide a sound and continuing basis for growth. Some widely accepted measures of performance are the following:

- *Profitability*: percent return on net sales, percent return on owners' equity, percent return on total assets employed
- *Growth*: percent increase in sales, percent increase in earnings per share, percent increase in market share
- *Value creation*: percent increase in common stock value per share

If the company's strategy were to be the lowest-cost producer, an alternative set of measurements would be required.

THE PLANNING PROCESS

The degree of accuracy of the projections and plans varies with the period covered. In view of the many uncertainties involved in projecting activities over a five-year period, the usual procedure is to prepare plans for the first year in considerable detail. In contrast, summary projections are used for the remaining four years. As each year passes, new plans are made on the basis of recent experience and data, and a new fifth year is added. Whether or not operational and financial planning is done over a five-year period, it is necessary to follow this planning procedure on at least a one-year basis in order to lay a sound foundation for running the business and preparing the budget for the next year.

Commencing with this planning activity, Exhibit 1-4 diagrams the flow of activity through all phases of the budget function. Although Exhibit 1-4 assumes the existence of a planning staff and budget director, these positions may not be present in a given company, where the actual functions are performed, however informally, by some other individual or group. In this example, detailed planning for the coming year starts with a general discussion between the CEO and the planning staff, usually in early September. The planning staff has prepared economic evaluations of national, geographic, and industry trends in consumer demand. Keeping abreast of these types of data is the continuing function of the company's planning staff, which has access to a great abundance of statistics from government sources, trade associations, and market surveys by the company's own sales force or market research organization. Of course, cold statistics on past activities do not contain the answer to the future development of a company. In some companies, especially those in mature markets, planning lacks effectiveness because it does not make full use of all the information available for studying the past.

Paralleling the planning staff's accumulation of data relating to economic trends is the sales vice president's accumulation and analysis of the company's past performance data in various areas. He or she will make an assessment of the company's competitive position and future potential based on the trends developed by the planning staff.

The planning phase culminates in a broad operating plan. This plan includes a statement of goals, subgoals, and broad performance objectives. It is sent to the operating departments for the development of department plans that are aimed at accomplishing company goals and objectives. Department plans are formulated to include specific, measurable performance objectives. These objectives might, for instance, include scheduled production, a target output per labor hour, and a target for defective units. These objectives must then be translated into financial terms in the form of a budget.

BUDGETING FUNDAMENTALS

Looking at how a budget is fabricated in a medium-size business organization will give you some insight into the fundamental aspects of budgeting.



Exhibit 1-4

Simplified Diagram of the Planning and Budgeting Process

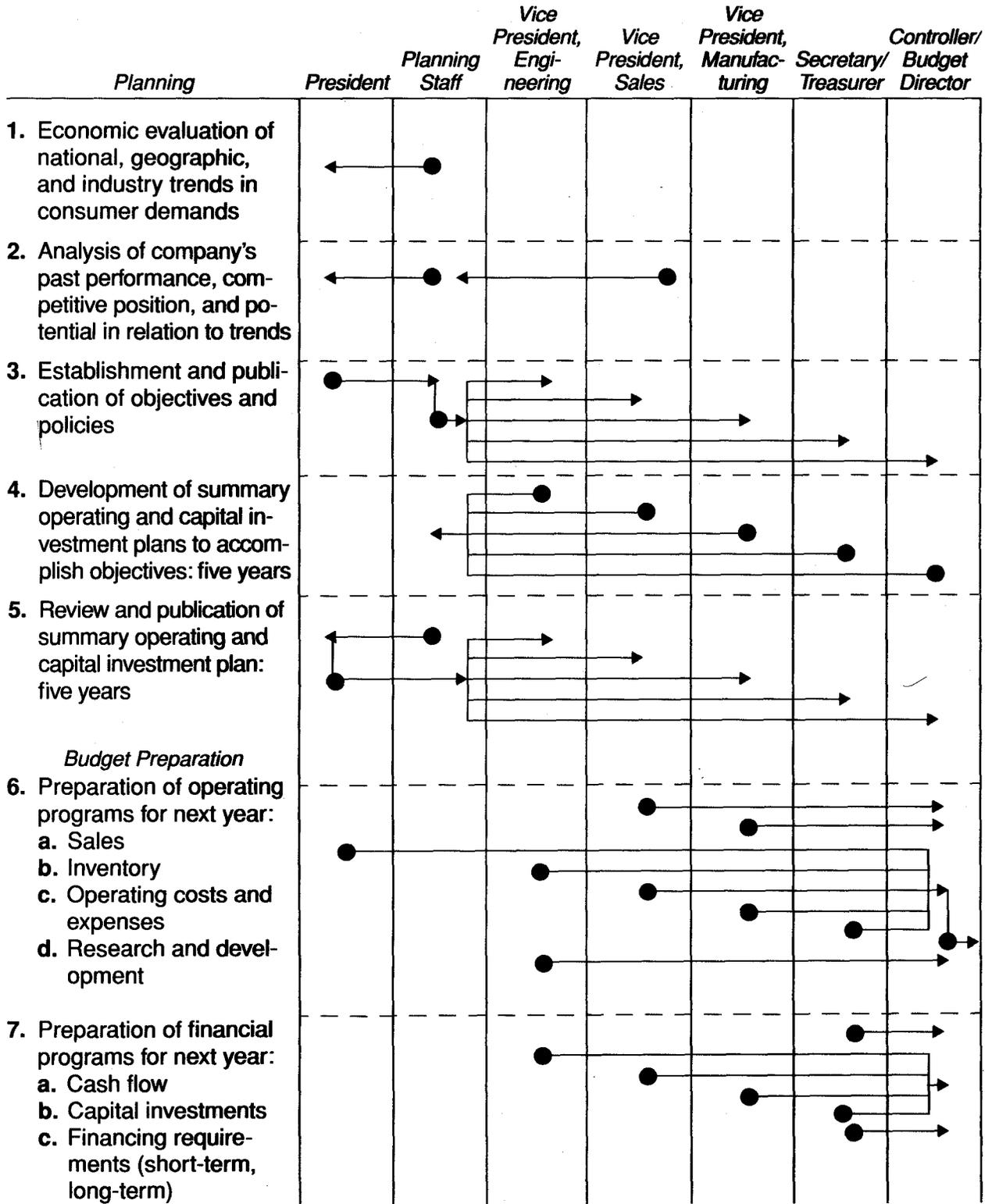
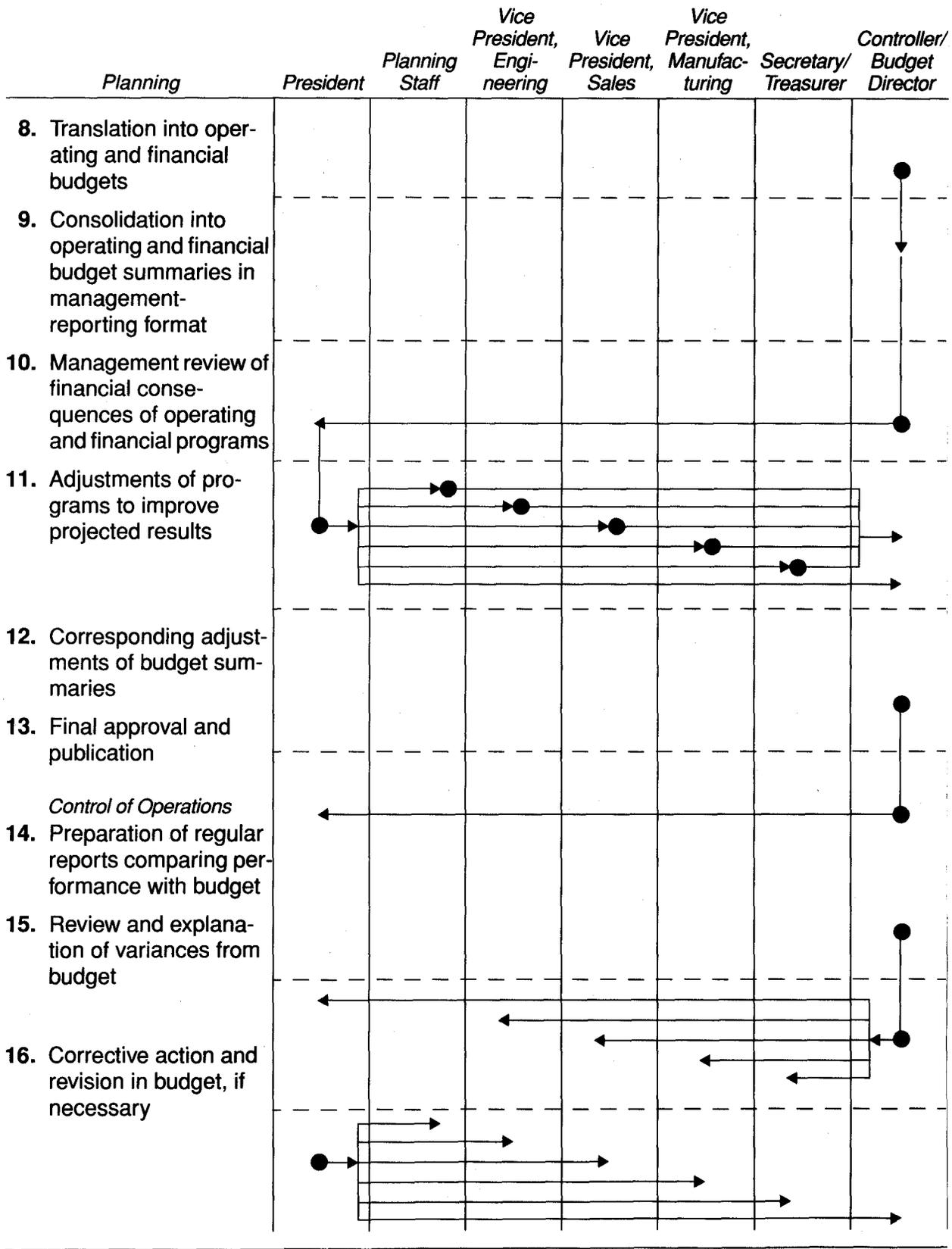


Exhibit continued on next page.

Exhibit 1-4: continued from previous page.



Initially, the controller receives the operating plans of the line managers and other department heads and translates these plans into a comprehensive projection of financial condition and operating results. Final judgment should not be made until the effect of the plans can be estimated by the CEO in terms of their impact on company resources and profits.

Chart of Accounts

The chart of accounts represents a standardized classification of all accounting data, including accounts for every component of assets, liabilities, and stockholders' equity. The focus in this discussion is on accounts related to expenditures. Accounting classifications for expenditures such as salaries, fringe benefits, rents, and taxes are very familiar. When businesses are relatively small and simple, a one-dimensional description of expenditures is adequate. For more complex businesses, additional coding is needed to implement responsibility reporting.

Responsibility Reporting

Responsibility reporting requires that all expenditures be traceable to some manager within the organization. In other words, some manager must be able to authorize or veto each expenditure. Responsibility reporting parallels the requirement that all performance objectives be traceable to some manager in the organization. Accordingly, the expenditures incurred by a manager and the organizational unit under his or her control in pursuing a performance objective need to be recorded. The addition of responsibility accounting arose from the need for budgeting in terms that could be related to the managers responsible for the expenditures. This dimension, then, largely reflects the organizational structure of the company.

Controllability is a matter of degree. In practice, judgment is used. The question can be asked, "Does this manager have significant influence over this cost?" If the answer is no, he or she should not be charged. Instead, someone at the same level or at a higher level should be charged.

Reporting transactions in two dimensions—first by the nature of the expenditure and second by the organizational unit responsible for the action—permits management to pinpoint responsibilities for the dollar consequences of planning, execution, and control. Dollar budgets and actual performance against the budgets can be reflected in separate statements for each block on the organizational chart, thus permitting businesspeople to make budgeting an integral part of the management function.

Coding can be added to enable management to gain additional insight into how the business works. For example, coding revenue and expense data on customers allows an analysis of customer profitability. Computerized sales order processing systems generally have the capability to provide reports on sales by customer. However, a more important question is which customers are sources of high profits and which customers may be generating losses. This requires data on expenses by customer. Today's information technology enables management to perform expense analyses at a reasonable cost.

Flexible Budgeting

Flexibility is an essential component of an effective budget program. A flexible budget is defined as a budget whose amount depends on the, actual activity level achieved. In months with high planned activity, the master budget amount is higher than in months with low activity. Flexible budgets make sense because most companies have costs that fluctuate with activity. Some costs, such as advertising expense costs, are budgeted as a fixed amount based on management's decisions. These are discretionary fixed expenses, and the flexible budget amount is a fixed amount.

To gain a clearer understanding of the flexible budget concept, consider a distribution warehouse that fills and ships sales orders. The master budget for January shows the following selected amounts:

Sales	\$800,000
Supervisory salaries	9,000
Shipping supplies	4,000

The actual amounts for January were as follows:

Sales	\$600,000
Supervisory salaries	9,000
Shipping supplies	3,600

While supervisory salaries equaled the master budget amount, shipping supplies were lower. Was performance favorable? With a flexible budget, supervisory salaries are an indirect fixed expense and are not expected to fluctuate directly with sales volume. They can change if a supervisory position is added or dropped or if a salary is raised or cut.

Conversely, shipping supplies is a variable expense driven by sales volume. As sales decrease, shipments decrease and fewer supplies are used. Because actual sales were only 75 percent of the master budget amount ($\$600,000 / \$800,000$), the flexible budget amount is adjusted downward to $\$3,000$ ($75\% \times \$4,000$), creating a $\$600$ unfavorable variance from budget ($\$3,000 - \$3,600$).

EFFECTIVE BUDGETING

Because of the growing complexity of business and business problems and because of the movement toward decentralization in large enterprises, increased attention is being given to better planning and control techniques. Consequently, the use of sound budgeting techniques is becoming more prevalent. In addition, corporate restructuring has resulted in a trend toward placing the responsibility for budgeting at higher levels in the organization. In earlier days it was customary to find the budget function buried deeply in the accounting operation; today it is not uncommon to have the budget function report to levels of management above the controller. Although it is still

useful for the budget director to report to the corporate controller, the trend toward reporting to a higher level is a recognition of the need to have the budget function broadly based in all operating areas of the business.

Many companies use budget committees. The budget committee typically is composed of representatives from most operating areas. This composition promotes coordination. If properly administered, the budget committee can perform the very useful role of encompassing and reconciling the many diverse interests that make up a modern business.

An effective budgeting system facilitates control. The budgeting system must fit the company's operational control needs.



Effective Budgeting Systems in Practice

Two examples of companies with effective budgeting systems are the AIM company and ZEX Inc.

AIM Company controls operations through its budgeting and responsibility reporting system. It is a growing multiproduct company in the metal-converting field. Annual sales are approximately \$60 million. The company employs about 800 people and has a fairly typical organization. Top executives are able to control every area of the organization through a system of budgetary planning and control reporting by responsibility area. Yardsticks of performance are provided for all productive and service areas, and results of operations are accumulated and reported in terms of these yardsticks at all supervisory levels.

Sales and profit contribution are compared with previous plans; thus lower- or higher-than-planned results are readily determined. Selling expenses are controlled by the budgeting, accounting, and reporting personnel responsible for the expenses. Measurements of sales and selling expenses result in the effective control of income.

Production costs are measured by appropriate controls over materials costs, labor costs, and manufacturing overhead expenses. Costs incurred for materials are controlled through standards; price variations are segregated; and materials utilization is measured by charging excess issues of productive materials to the departments responsible for spoilage and comparing the charges with variable budget allowances. Productive labor costs are measured against standards, and variances are reported in terms of the department foreperson responsible for the variances. Manufacturing overhead expenses are controlled by reporting actual expenditures compared with variable or fixed budgets in terms of the individual who participated in planning the budgets and who had responsibility for the expenditures made. Control over services of auxiliary departments—that is, over general overhead expenses—is effected by comparing such costs (in terms of departments and of individuals incurring the costs) with expenditures previously planned and approved for levels of required service or for programs adopted.

Responsibility in budget preparation and in cost control is a major feature of AIM's control system. The system pinpoints responsibility for all controllable costs by individual and integrates standard cost reporting with the

company's budgetary controls. Reports are prepared for all levels of management, from the operating foreperson and service department supervisors to the CEO. The reporting system is designed as a tool for all levels of supervision to control their operations and their costs. It emphasizes information that is useful to the individual manager.

The company's reports are tailored to the company and to the executives who use them. This tailoring is carried down to the individual report rendered to each supervisor. The supervisor of each department determines, within a general framework, the extent of the detailed information he or she requires to control operations for which he or she is held accountable. Information technology has been applied when cost-effective opportunities have been identified. The result is a database on the company's operations that is available for special studies. Accounting allocations over which the individual has no control are not included in these reports.

ZEX is a manufacturer of defense products. Not surprisingly, the defense industry is subject to rather sudden and drastic changes in volume as a result of changes in government procurement programs. Accordingly, profit ability depends on the ability to react quickly to changes in volume. A drop in sales volume evokes a fairly quick reduction of such variable expenses as production labor and materials. If government orders for a product are cut to \$50,000 a month for ten months, from \$100,000 a month for twelve months, fewer people on the production line and less material to make the product will be needed. Conversely, new orders signal the need for more workers and materials.

Many defense businesses run into trouble when they fail to react quickly to decreases in sales volume by reducing direct discretionary fixed expenses. With fewer people on the production line, the need for supervisory and support personnel is reduced. If less material is used, fewer purchasing department personnel, materials handlers, and so forth are required. With reductions in all of these service activities come opportunities for reductions in general support activities, such as production control, accounting, and general office activities.

Unfortunately, ZEX Inc. had several unhappy experiences in which substantial losses were realized as a result of canceled orders and subsequent delays in taking the necessary retrenchment steps. Out of hard experience, the president of ZEX developed rather effective monitoring techniques. The ZEX system principally involved charts showing the relationship between indirect personnel and direct personnel. These charts were printed weekly by the president's administrative assistant, whose personal computer was networked into the company's databases. Changes in personnel were recorded in the personnel database and were reflected automatically on the next printout of the charts. A graphics package and color printer were used to show trends in direct and indirect personnel activity in relation to various other measures of activity. The president prominently displayed these charts in his office because they played such an important role in the new control system. The charts were the principal means of focusing on current problems at the periodic staff meetings.

Out of this approach evolved a quick-response system of adjusting indirect activities when direct activities contracted. When the charted ratio of

indirect to direct personnel exceeded the control limit, the president issued orders to the controller to set the example by eliminating a specified number of people from her department and by publishing guidelines for similar reductions in the other overhead departments. Although the use of charts in this way may appear to be a somewhat arbitrary procedure, it was the heart of a planning and control system that brought the company from an unsuccessful to a successful basis of operation in the volatile field of defense products.

As can be appreciated from the ZEX example, good budgeting requires substantive planning and control standards. Although informal systems at times can be successful, they are not as successful as formal systems implemented by companies using good budgeting techniques. The most successful systems are those that achieve the right balance between technique and form, on the one hand, and substantive planning and control standards, on the other.

Standards must be related to a company's situation and objectives, but the performance of similarly situated businesses is an important supplement to conclusions reached by analyzing one's own past performance. More information on competitors' experience is available to the public than most people realize.

THE PHASES OF BUDGETING

The receipt of the budget planning report from the CEO by the various line managers initiates the budget preparation phase. Each of these managers prepares an operating plan for the next year and submits it to the budget director. It may be helpful to refer again to Exhibit 1-4 for the sequence of events in budgeting.

Preparation of Operating Programs

As illustrated in Exhibit 1-4, the vice president of engineering prepares a recommended program of research and development, indicating priorities for the projects recommended. This step is important because the decisions as to how much can be spent on research must await the financial budget review procedure. Usually, the research budget contains more proposed projects than are expected to be funded, which permits the CEO to select projects that best meet the company's operating and profit objectives. Like all other line managers, the vice president of engineering must also prepare a program for operating the engineering and the research and development departments, a program that will become the basis for those departments' operating cost and expense budgets.

The sales vice president prepares the sales projections and the operating plans for the various sales activities and advertising campaigns. The manufacturing vice president prepares the inventory and manufacturing plans. The treasurer and controller also complete programs for the operations of their departments.

Preparation of Financial Programs

In addition to the operating plans of the various department heads, the budget director must be furnished with details of the financial programs for the year. The treasurer must prepare projections of cash requirements, preferably in the form of cash flow statements, and indicate sources of additional financing if required. The capital investment programs required by the various line managers to accomplish their operating programs also must be furnished to the budget director for the capital expenditures budget.

Translation into Budgets

With all of the basic data in hand, the task of assigning dollar values to the operating and financial programs is the next step in the budgeting process. Generally, this step is accomplished by translating the programs into dollars and by using the same account codes used in responsibility reports, which usually are issued to each line manager. Two basic steps make up this process: (1) the effect of the programs on the budget lines (i.e., accounts) of each department must be determined, and (2) costs must be adjusted for trends in prices being paid.

For example, suppose planned expanded output for a company has resulted in greater activity for the assembly department. In applying the first step, it is determined that the usage of electricity for this department will increase by 15 percent, from \$30,000 to \$34,500. However, this increase is based on last year's rates. If electricity rates are expected to increase by 10 percent, the budgeted amount would be 10 percent higher than \$34,500, or \$37,950.

In many companies, the budget director acts as a coordinator in this translation process. Because the budget director typically has only a financial background, he or she cannot make all of the budget estimates required. In cases such as the electricity example, technical expertise is required. The budget director must give adequate instructions to the various departments so that their operating programs contain sufficient data for the budget preparation phase. These instructions generally should be documented in a budget manual.

Budget translation may occur entirely at lower levels in the organization depending on whether the expertise is available. In larger companies, this translation usually takes place at the divisional level, where divisional controllers have the needed financial expertise.

Consolidation

Having completed the preparation of the individual department budgets, the budget director consolidates them into operating and financial budget summaries in a form identical to that normally used when reporting operating and financial results to management. In other words, when the budget department has completed its work, it has a product that looks exactly like the monthly operating and financial reports of the business, except that the

figures represent budgets for the next year instead of actual results for a completed period. These budget summaries usually show operating results for each month of the budget year. Normally, cash flow statements are also presented for each month of the year, but other balance sheet items may be shown on only a quarterly or semiannual projected basis.

Management Review

At this point, the budget director submits the budget summaries to the CEO with comments and recommendations. As a result of the work involved in the preparation of these summaries, the budget director has had an opportunity to gain a real insight into the operating plans of the various managers and has determined the consequences in financial terms, which the CEO may now review in a comprehensive way. The effective budget director helps the CEO analyze the plan and develop possible alternatives if the projected results appear unsatisfactory. The budget director acts as an analyst and a catalyst but does not make operating decisions or plans. A good budget director has the ability to point out why the projected result is or is not satisfactory and what the CEO can do to change the situation if he or she so desires.

Adjustments

When the financial consequences of the initial plans are not satisfactory, the CEO or budget director asks the line managers and department heads to adjust their programs in specified ways to accomplish the desired profit and return on investment goals. In effect, the operating and financial programs included in the budget requests are returned to the originating line managers with specific suggestions for change. After the line managers have made the suggested changes, the programs are resubmitted to the budget director who then makes the corresponding financial adjustments and resubmits consolidated operating and financial budget summaries to the CEO for final approval and publication.

Approval and Publication

Final approval and publication may not be immediately forthcoming. Realizing the importance of the budget, the CEO again performs the management review process. Further adjustments of programs and corresponding budget summaries may be required before the CEO feels that the company's operating plan has been stated adequately in the form of a master budget. This process is sometimes called cycle-up, cycle-down. The resulting master budget will be used in planning and controlling the company.

BUDGETARY SLACK

Because performance objectives are set during the budgeting process, conflicts between personal and organizational goals can arise. Managers have

personal goals with regard to personal income, status, and career path. In some companies, management bonus or incentive systems are linked in some way to the attainment of the budget. Managers tend to formulate budgets that can be achieved readily and that meet top management's expectations. Because failure to achieve budget can be viewed very negatively, managers are tempted to build in slack, or a cushion.

Budgetary slack provides for some margin of error. It typically involves some discretionary fixed expenses that can be cut back quickly if business conditions or performance is worse than planned. A good example is maintenance. When performance is better than budget, the division manager may overspend on maintenance, making some repairs and replacements that could have been postponed for a few years—new roofing on all buildings, for example. Because division profits are overbudget, much attention probably will not be paid to overbudget maintenance expenses. In bad times, the maintenance would be deferred. Instead of having the roofs replaced, managers would have them patched.

Slack within the company tends to grow in good years. In bad times, it is to some extent voluntarily reduced. Some division managers, however, are never inclined to reduce slack. For the managers, top management might embark on a cost-cutting campaign to encourage slack reduction. Too much pressure to cut slack, however, can result in conflict and can damage the budgetary process for years.

SUMMARY

Effective budgeting systems facilitate the value creation process. They are an invaluable component of a company's planning and control efforts. The system forces managers to plan and promotes coordination. The system supports responsibility accounting and reporting. The master budget, accompanied by detailed plans, documents the company's goals and objectives. Linking the master budget to the company's long-range and strategic planning enhances the overall planning effort.



Review Questions

1. Which of the following is true about a hierarchy of goals? 1. (c)
 - (a) They should be set by corporate-level managers.
 - (b) Goals at the functional level should be the same as at the corporate level.
 - (c) Subgoals are set in harmony with goals at upper levels.
 - (d) All of the above are true.

2. Performance objectives can be measured in _____ terms and have a _____ dimension. 2. (b)
 - (a) detailed; management
 - (b) specific; time
 - (c) detailed; flexible
 - (d) specific; financial

3. The _____ budget is the first component of the master budget, and it is integrated with the _____ expense budget. 3. (c)
 - (a) president's; marketing
 - (b) president's; sales
 - (c) sales; marketing
 - (d) production; sales

4. The requirement of systematic budgeting that prevents managers from shortcutting the planning process is: 4. (d)
 - (a) the budget format.
 - (b) the profit budget.
 - (c) the control phase.
 - (d) documentation of assumptions and specific plans.

5. The long-range plan typically is documented by the: 5. (a)
(a) corporate financial plan and related reports.
(b) strategic plan.
(c) strategic thinking.
(d) master budget.
6. The planning phase culminates in a broad operating plan that includes: 6. (d)
(a) a statement of goals.
(b) a statement of subgoals.
(c) a statement of broad performance objectives.
(d) all of the above.
7. Business expenditures or transactions generally are coded and reported by the nature of the expenditure and the: 7. (a)
(a) responsible unit.
(b) customer.
(c) budget line.
(d) budget process.
8. Electricity is classified as a variable expense in a flexible budget. The master budget amount for electricity at the master budget volume of activity is \$10,000. If actual volume is 20 percent higher than the master budget volume, the flexible budget amount would be: 8. (d)
(a) \$10,000.
(b) \$20,000.
(c) \$10,200.
(d) \$12,000.
9. Supplies expense was \$40,000 last year. Current plans budget an 8 percent increase in activity, but the cost of supplies is expected to increase by 10 percent. Translating this information, next year's budget should be: 9. (c)
(a) \$43,200.
(b) \$44,000.
(c) \$47,520.
(d) \$48,400.
10. Budgetary slack within the company tends to: 10. (d)
(a) be tolerated by growth companies.
(b) be unethical.
(c) be the budget director's responsibility.
(d) grow in good years.

