

LEARNING OBJECTIVES

- 1** State the primary goal of managerial accounting.
- 2** Describe how budgets are used in planning.
- 3** Describe how performance reports are used in the control process.
- 4** Distinguish between financial and managerial accounting.
- 5** Define cost terms used in planning, control, and decision making.
- 6** Explain the two key ideas in managerial accounting.
- 7** Discuss the impact of information technology on competition, business processes, and the interactions companies have with suppliers and customers.
- 8** Describe a framework for ethical decision making.
- 9** Discuss the duties of the controller, the treasurer, the chief information officer (CIO), and the chief financial officer (CFO).



MANAGERIAL ACCOUNTING IN THE INFORMATION AGE

What type of job will you hold in the future? You may be a marketing manager for a consumer electronics firm, you may be the director of human resources for a biotech firm, or you may be the president of your own company. In these and other managerial positions you will have to plan operations, evaluate subordinates, and make a variety of decisions using accounting information. In some cases, you will find information from your firm's balance

sheet, income statement, statement of retained earnings, and statement of cash flows to be useful. However, much of the information in these statements is more relevant to *external* users of accounting information, such as stockholders and creditors. In addition, you will need information prepared specifically for firm managers, the *internal* users of accounting information. This type of information is referred to as managerial accounting information.



LEARNING OBJECTIVE 1

State the primary goal of managerial accounting.

LEARNING OBJECTIVE 2

Describe how budgets are used in planning.

LEARNING OBJECTIVE 3

Describe how performance reports are used in the control process.

If you are like most users of this book, you have already studied financial accounting. Financial accounting stresses accounting concepts and procedures that relate to preparing reports for external users of accounting information. In comparison, **managerial accounting** stresses accounting concepts and procedures that are relevant to preparing reports for internal users of accounting information. This book is devoted to the subject of managerial accounting, and this first chapter provides an overview of the role of managerial accounting in planning, control, and decision making. The chapter also defines important cost concepts, and introduces key ideas that will be emphasized throughout the text. The chapter ends with a discussion of the information age and the impact of information technology on business, a framework for ethical decision making, and the role of the controller as the top management accountant. Note that you can enhance and test your knowledge of the chapter using Wiley's online resources and the self-assessment quiz at the end of the chapter.

GOAL OF MANAGERIAL ACCOUNTING

Virtually all managers need to plan and control their operations and make a variety of decisions. The goal of managerial accounting is to provide the information they need for *planning*, *control*, and *decision making*. If *your* goal is to be an effective manager, a thorough understanding of managerial accounting is essential.

PLANNING

Planning is a key activity for all companies. A plan communicates a company's goals to employees aiding coordination of various functions such as sales and production. A plan also specifies the resources needed to achieve company goals.

Budgets for Planning. The financial plans prepared by managerial accountants are referred to as **budgets**. A wide variety of budgets may be prepared. For example, a *profit budget* indicates planned income, a *cash-flow budget* indicates planned cash inflows and outflows, and a *production budget* indicates the planned quantity of production and the expected costs.

Consider the production budget for Surge Performance Beverage Company. In the coming year, the company plans to produce 5,000,000 12-ounce bottles. This amount is based on forecasted sales. To produce this volume, the company estimates it will spend \$1,500,000 on bottles, \$400,000 on ingredients, \$150,000 on water, and pay workers at its bottling plant \$300,000. It also expects to pay \$60,000 for rent, incur \$80,000 of depreciation of equipment, and pay \$100,000 for other costs. The production cost budget presented in Illustration 1-1 summarizes this information. This budget informs the managers of Surge about how many bottles the company intends to produce and what the necessary resources will cost.

CONTROL

Control of organizations is achieved by evaluating the performance of *managers* and the *operations* for which they are responsible. The distinction between evaluating managers and evaluating the operations they control is important. Managers are evaluated to determine how their performance should be rewarded or punished, which in turn motivates them to perform at a high level. Based on an evaluation indicating good performance, a manager might receive a substantial

Illustration 1-1
Production cost budget

 Budgeted Production Costs For the Year Ended December 31, 2006	
Budgeted Production	5,000,000 Bottles
Cost of bottles	\$1,500,000
Ingredient cost	400,000
Water	150,000
Labor cost	300,000
Rent	60,000
Depreciation	80,000
Other	<u>100,000</u>
Total budgeted production cost	<u>\$2,590,000</u>



Managerial accounting information is used to plan and control operations and make decisions at Surge Performance Beverage Company.

bonus. An evaluation indicating a manager performed poorly might lead to the manager being fired. In part because evaluations of managers are typically tied to compensation and promotion opportunities, managers work hard to ensure that they will receive favorable evaluations. (Of course, managers may also work hard because they love their jobs, receive respect from coworkers, or value the sense of accomplishment from a job well done!)

Operations are evaluated to provide information as to whether or not they should be changed (i.e., expanded, contracted, or modified in some way). An evaluation of an operation can be negative even when the evaluation of the manager responsible for the operation is basically positive. For example, the manager of one of the two bottling plants at Surge Performance Beverage Company may do a good job of controlling costs and meeting deadlines given that the plant is old and out of date. Still, senior management may decide to close the plant because, given the outdated equipment in the plant, it is not an efficient operation. In this scenario, the manager receives a positive evaluation whereas the operation receives a negative evaluation.

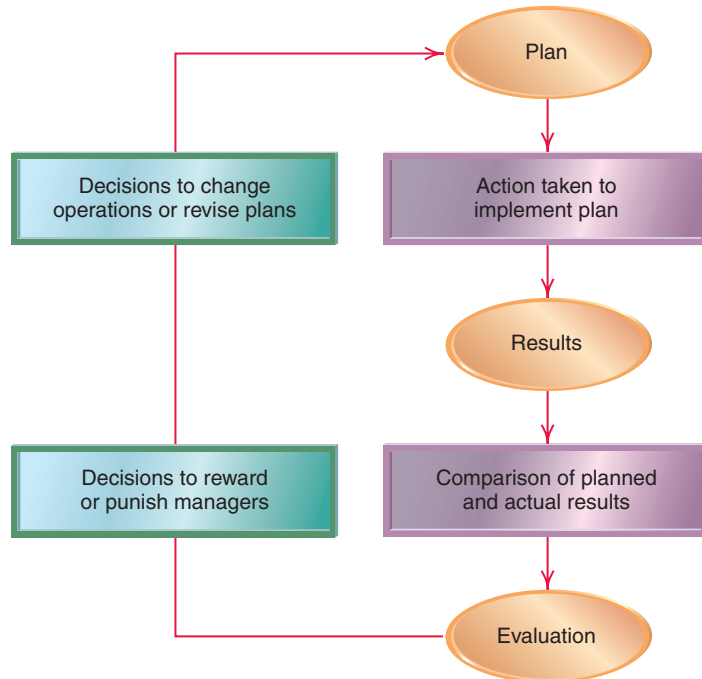
Company plans often play an important role in the control process. Managers can compare actual results with planned results and decide if corrective action is necessary. If actual results differ from the plan, the plan may not have been followed properly; the plan may have not have been well thought out; or changing circumstances may have made the plan out of date.

Illustration 1-2 presents the major steps in the planning and control process. Once a plan has been made, actions are taken to implement it. These actions lead to results that are compared with the original plan. Based on this evaluation, managers are rewarded (e.g., given substantial bonuses or promoted if performance is judged to be good) or punished (e.g., given only a small bonus, given no bonus, or even fired if performance is judged to be poor). Also, based on the evaluation process, operations may be changed. Changes may consist of expanding (e.g., adding a second shift), contracting (e.g., closing a production plant), or improving operations (e.g., training employees to do a better job answering customer product inquiries). Changes may also consist of revising an unrealistic plan.

Performance Reports for Control. The reports used to evaluate the performance of managers and the operations they control are referred to as **performance reports**. Although there is no generally accepted method of preparing a performance report,

Illustration 1-2

Planning and control process



such reports frequently involve a comparison of current period performance with performance in a prior period or with planned (budgeted) performance.

Suppose, for example, that during 2006, Surge Performance Beverage Company actually produced 5,000,000 bottles and incurred the following costs:

Cost of bottles	\$1,650,000
Ingredient cost	450,000
Water	152,000
Labor cost	295,000
Rent	60,000
Depreciation	80,000
Other	<u>101,000</u>
Total actual production cost	<u>\$2,788,000</u>

A performance report comparing these actual costs to the budgeted costs is presented in Illustration 1-3.

Typically, performance reports only suggest areas that should be investigated; they do not provide definitive information on performance. For example, the performance report presented in Illustration 1-3 indicates that something may be amiss in the control of bottle and ingredient cost. Actual costs are \$150,000 more than planned for bottles and \$50,000 more than planned for ingredients. There are many possible reasons why these costs are greater than the amounts budgeted. Perhaps the price of bottles or key ingredients increased, or perhaps bottles were damaged in the production process. Management must investigate these possibilities before taking appropriate corrective action.

Although performance reports may not provide definitive answers, they are still extremely useful. Managers can use them to “flag” areas that need closer attention and to avoid areas that are under control. It would not seem necessary, for ex-

Illustration 1-3
Performance report

 Performance Report, Production Costs For the Year Ended December 31, 2006			
	Actual	Budget	Difference (Actual Minus Budget)
Production (number of bottles)	5,000,000	5,000,000	-0-
Cost of bottles	\$1,650,000	\$1,500,000	\$150,000
Ingredient cost	450,000	400,000	50,000
Water	152,000	150,000	2,000
Labor Cost	295,000	300,000	(5,000)
Rent	60,000	60,000	-0-
Depreciation	80,000	80,000	-0-
Other	101,000	100,000	1,000
Total production cost	<u>\$2,788,000</u>	<u>\$2,590,000</u>	<u>\$198,000</u>

ample, to investigate labor, rent, depreciation, or other costs, because these costs are either equal to or relatively close to the planned level of cost. Typically, managers follow the principle of **management by exception** when using performance reports. This means that managers investigate departures from the plan that appear to be exceptional; they do not investigate minor departures from the plan.

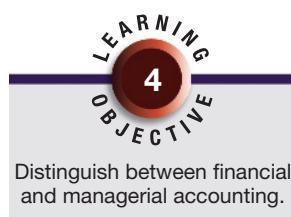
DECISION MAKING

As indicated in Illustration 1-2, decision making is an integral part of the planning and control process—decisions are made to reward or punish managers, and decisions are made to change operations or revise plans. Should a firm add a new product? Should it drop an existing product? Should it manufacture a component used in assembling its major product or contract with another company to produce the component? What price should a firm charge for a new product? These questions indicate just a few of the key decisions that confront companies. And how well they make these decisions will determine future profitability and, possibly, the survival of the company. Recognizing the importance of making good decisions, we'll devote all of Chapters 7, 8, and 9 to the topic. And below you'll see that one of the two key ideas of managerial accounting relates to decision making and its focus on so-called incremental analysis. Finally, at the end of each chapter, there is a feature called **MAKING BUSINESS DECISIONS**. This feature will remind you of how the chapter material is linked to decision making, and it will summarize the knowledge and skills presented in the chapter that will help you make good decisions as a manager.

A COMPARISON OF MANAGERIAL AND FINANCIAL ACCOUNTING

As suggested in the opening of this chapter, there are important differences between managerial and financial accounting:

1. Managerial accounting is directed at internal rather than external users of accounting information.
2. Managerial accounting may deviate from generally accepted accounting principles (GAAP).



3. Managerial accounting may present more detailed information.
4. Managerial accounting may present more nonmonetary information.
5. Managerial accounting places more emphasis on the future.

Internal versus External Users. Financial accounting is aimed primarily at external users of accounting information, whereas managerial accounting is aimed primarily at internal users (i.e., company managers). External users include investors, creditors, and government agencies, who need information to make investment, lending, and regulation decisions. Their information needs differ from those of internal users, who need information for planning, control, and decision making.

Need to Use GAAP. Much of financial accounting information is required. The Securities and Exchange Commission (SEC) requires large, publicly traded companies to prepare reports in accordance with generally accepted accounting principles (GAAP). Even companies that are not under the jurisdiction of the SEC prepare financial accounting information in accordance with GAAP to satisfy creditors. Managerial accounting, on the other hand, is completely optional. It stresses information that is *useful* to internal managers for planning, control, and decision making. If a managerial accountant believes that deviating from GAAP will provide more useful information to managers, GAAP need not be followed.

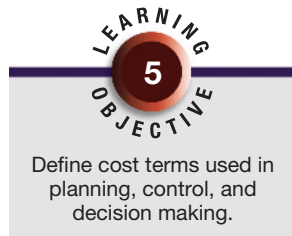
Detail of Information. Financial accounting presents information in a highly summarized form. Net income, for example, is presented for the company as a whole. To run a company, however, managers need more detailed information, for example, information about the cost of operating individual departments versus the cost of operating the company as a whole or sales byproduct versus total company sales.

Emphasis on Nonmonetary Information. Both managerial and financial accounting reports generally contain monetary information (information expressed in dollars such as revenue and expense). But, managerial accounting reports can also contain a substantial amount of nonmonetary information. The quantity of material consumed in production, the number of hours worked by the office staff, and the number of product defects are examples of important nonmonetary data that appear in managerial accounting reports.

Emphasis on the Future. Financial accounting is primarily concerned with presenting the results of past transactions. Managerial accounting, on the other hand, places considerable emphasis on the future. As indicated previously, one of the primary purposes of managerial accounting is planning. Thus, managerial accounting information often involves estimates of the costs and benefits of future transactions.

SIMILARITIES BETWEEN FINANCIAL AND MANAGERIAL ACCOUNTING

We shouldn't overstate the differences between financial accounting and managerial accounting in terms of their respective user groups. Financial accounting reports are aimed *primarily* at external users, and managerial accounting reports are aimed *primarily* at internal users. However, managers also make significant use of financial accounting reports, and external users occasionally request finan-



COST TERMS USED IN DISCUSSING PLANNING, CONTROL, AND DECISION MAKING

When managers discuss planning, control, and decision making, they frequently use the word *cost*. Unfortunately, what they mean by this word is often ambiguous. This section defines key cost terms so that you will have the accounting vocabulary necessary to discuss issues related to planning, control, and decision making. The discussion will be brief because we will return to these cost terms and examine them in detail in later chapters.

VARIABLE AND FIXED COSTS

The classification of a cost as variable or fixed depends on how the cost changes in relation to changes in the level of business activity.

Variable Costs. Costs that increase or decrease in proportion to increases or decreases in the level of business activity are **variable costs**. Material and direct labor are generally considered to be variable costs because in many situations they fluctuate in proportion to changes in production (business activity). Suppose that for Surge Performance Beverage Company the cost of bottles, ingredients, water and labor are variable costs and in the prior month when production was 400,000 bottles, costs were \$120,000 for bottles, \$32,000 for ingredients, \$12,000 for water and \$24,000 for labor. How much variable cost should the company plan on for the current month if production is expected to increase by 20 percent to 480,000 bottles? Since the variable costs change in proportion to changes in activity, if production increases by 20 percent, these costs should also increase by 20 percent. Thus, the cost of bottles should increase to \$144,000, the cost of ingredients should increase to \$38,400, the cost of water to \$14,400 and the cost of labor to \$28,800.

	Prior Month		Current Month	
	400,000 Bottles	Per Unit	480,000 Bottles	Per Unit
Production				
Variable costs:				
Cost of bottles	\$120,000	\$0.30	\$144,000	\$0.30
Ingredient cost	32,000	0.08	38,400	0.08
Water	12,000	0.03	14,400	0.03
Labor cost	24,000	0.06	28,800	0.06
Total variable cost	<u>\$188,000</u>	<u>\$0.47</u>	<u>\$225,600</u>	<u>\$0.47</u>

Note that although the *total variable cost* increases from \$188,000 to \$225,600 when production changes from 400,000 to 480,000 units, the *variable cost per unit* does not change. It remains \$0.47 per bottle. With variable cost of \$0.47 per bottle, variable cost increases by \$37,600 (i.e., $\$0.47 \times 80,000$) when production increases by 80,000 bottles.

Fixed Costs. Costs that remain constant when there are changes in the level of business activity are **fixed costs**. Depreciation and rent are costs that typically do not change with changes in business activity. Suppose that in the prior month, Surge Performance Beverage Company incurred \$20,000 of fixed costs including \$5,000 of rent, \$6,667 of depreciation, and \$8,333 of other miscellaneous fixed costs. If the company increases production to 480,000 bottles in the current month, the levels of rent, depreciation, and other fixed costs incurred should remain the same as when production was only 400,000 bottles. However, with fixed costs, the cost per unit does change when there are changes in production. When production increases, the constant amount of fixed cost is spread over a larger number of units. This drives down the fixed cost per unit. With an increase in production from 400,000 to 480,000 units, *total fixed costs* remains at \$20,000. Note, however, that *fixed cost per unit* decreases from \$0.0500 per unit to \$0.0417 per unit.

	Prior Month		Current Month	
	400,000 Bottles	Per Unit	480,000 Bottles	Per Unit
Production				
Fixed costs:				
Rent	\$ 5,000	\$0.0125	\$ 5,000	\$0.0104
Depreciation	6,667	0.0167	6,667	0.0139
Other	8,333	0.0208	8,333	0.0174
Total fixed cost	<u>\$20,000</u>	<u>\$0.0500</u>	<u>\$20,000</u>	<u>\$0.0417</u>

SUNK COSTS

Costs incurred in the past are referred to as **sunk costs**. These costs are not relevant to present decisions, because they do not change when these decisions are made. For example, suppose you buy a ticket to a play for \$30. Before the play, you run into a friend who invites you to a party. If you go to the party you won't be able to attend the play. The cost of the ticket is irrelevant to the decision as to whether or not you should go to the party. What matters is how much you will enjoy the party versus the play and how much you can *sell* the ticket for (not how much you *paid* for it). Whether you go to the play or go to the party, you are out \$30 (the price of the ticket to the play, which is sunk).

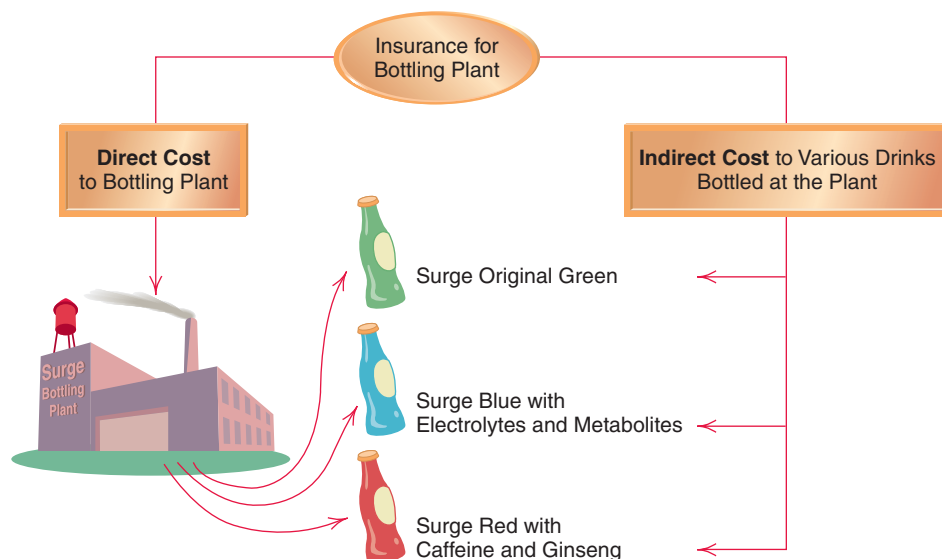
OPPORTUNITY COSTS

The values of benefits foregone when one decision alternative is selected over another are **opportunity costs**. For example, suppose Surge Performance Beverage Company refuses an order to produce 50,000 bottles for a grocery chain because taking on the order will require the company to miss delivery deadlines on orders already taken. Suppose the order would have generated \$50,000 of additional revenue (the product sells for \$1 per bottle) and \$23,500 of additional costs. Then the opportunity cost (the net benefit foregone) associated with meeting current delivery deadlines is \$26,500 (\$50,000 – \$23,500).

DIRECT AND INDIRECT COSTS

Costs that are directly traceable to a product, activity, or department are **direct costs**. **Indirect costs** are those that either cannot be directly traced to a product, activity, or department, or are not worth tracing. The distinction between a direct

Illustration 1-4
Insurance as both a direct and indirect cost



and an indirect cost depends on the object of the cost tracing. For example, Surge Performance Beverage Company has a production facility in Memphis for which it incurs insurance costs. The insurance cost related to the Memphis plant is obviously a direct cost of the Memphis plant. However, the insurance cost is an indirect cost of the individual types of sports drinks produced in the Memphis plant because *direct* tracing of the insurance cost to each type of drink is not possible. This situation is presented in Illustration 1-4.

CONTROLLABLE AND NONCONTROLLABLE COSTS

A manager can influence a **controllable cost** but cannot influence a **noncontrollable cost**. The distinction between controllable and noncontrollable costs is especially important when evaluating manager performance. A manager should not be evaluated unfavorably if a noncontrollable cost sharply increases.

As an example of controllable and noncontrollable costs, consider a plant supervisor. This individual influences labor and material costs by scheduling workers and assuring an efficient production process. Thus, labor and material costs are the supervisor's controllable costs. However, the supervisor cannot determine insurance for a plant. A plant manager or an insurance specialist makes decisions regarding insurance. Therefore, insurance cost is a supervisor's noncontrollable cost but a plant manager's or an insurance specialist's controllable cost.

LEARNING OBJECTIVE 6

Explain the two key ideas in managerial accounting.

TWO KEY IDEAS IN MANAGERIAL ACCOUNTING

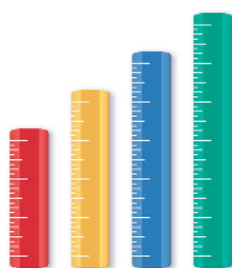
The subject of managerial accounting has many concepts. However, two ideas are fundamental to understanding the use of managerial accounting information in planning, control, and decision making. Keep these two ideas in mind as you progress through your business career—you'll find them to be invaluable!

Because the ideas are so important, one or both will be emphasized in each chapter of the book and identified with an icon.



1. Decision making relies on incremental analysis—an analysis of the revenues that increase (decrease) and the costs that increase (decrease) if a decision alternative is selected.

2. You get what you measure!



Decision Making/
Incremental Analysis

DECISION MAKING RELIES ON INCREMENTAL ANALYSIS

Incremental analysis is the appropriate way to approach the solution to all business problems. Essentially, **incremental analysis** involves the calculation of the difference in revenue and the difference in cost between decision alternatives. The difference in revenue is the **incremental revenue** of one alternative over another, whereas the difference in cost is the **incremental cost** of one alternative over another. If an alternative yields an incremental profit (the difference between incremental revenue and incremental cost), it is the preferred alternative. In the simplified example that follows, decision alternative 1 should be selected because, compared with alternative 2, it yields an incremental profit of \$3,000.

Comparison of Decision Alternatives					
	Alternative One		Alternative Two		
Revenue	\$15,000	–	\$10,000	= \$5,000	Incremental Revenue
Cost	8,000	–	6,000	= 2,000	Incremental Cost
Profit	<u>\$ 7,000</u>	–	<u>\$ 4,000</u>	= <u>\$3,000</u>	Incremental Profit

Although the idea is simple, implementing it in practice can be difficult—that's why we devote all of Chapters 7, 8, and 9 to decision making. For now, let's look at a decision facing Surge Performance Beverage Company to gain a better understanding of incremental analysis.

Recall that at Surge Performance Beverage Company, the budgeted annual production costs for 5,000,000 bottles was \$2,590,000 as follows:

Production	5,000,000 bottles
Cost of bottles	\$1,500,000
Ingredient cost	400,000
Water	150,000
Labor cost	300,000
Rent	60,000
Depreciation	80,000
Other	100,000
Total production cost	<u>\$2,590,000</u>
Cost per unit	\$0.518

Currently, Surge sells its product only to grocery and health food stores at \$1 per bottle. Now, assume that Surge is approached by a dairy company that offers to buy 200,000 bottles in the coming year for \$0.75 per bottle. The dairy plans to use the drink as an ingredient in a new line of frozen yogurt energy bars. In this case there are two decision alternatives: (1) stick with the status quo and decline the offer or (2) accept the offer.

If the offer is accepted, incremental revenue (the increase in revenue due to accepting the offer versus declining the offer) will be \$150,000 and incremental cost (the increase in cost due to accepting the offer versus declining the offer) will be \$94,000. Thus, the incremental profit of accepting the offer is \$56,000. Assuming that the company has the capacity to produce the additional 200,000 bottles and that other orders will not have to be turned down if this large order is accepted (i.e., assuming there are no opportunity costs), Surge Performance Beverage Company should accept this order.

Incremental revenue ($0.75 \times 200,000$ bottles)		\$150,000
Less incremental costs:		
Increase in cost of bottles ($0.30 \times 200,000$)	\$60,000	
Increase in cost of ingredients ($0.08 \times 200,000$)	16,000	
Increase in cost of water ($0.03 \times 200,000$)	6,000	
Increase in cost of labor ($0.06 \times 200,000$)	<u>12,000</u>	<u>94,000</u>
Incremental profit		<u>\$ 56,000</u>

Note that in the analysis, we use only four of the production cost items (cost of bottles, cost of ingredients, cost of water and cost of labor). These are the only costs that increase with the new order, because all other costs (rent, depreciation, and other) are fixed and will not increase with an increase in production. Therefore, they are not incremental costs and are not relevant to the decision at hand. Think about rent expense. If the special order is rejected, rent expense will be \$60,000. If the special order is accepted, rent expense will still be \$60,000. Since rent expense does not change, it is not incremental, and it is not relevant in analyzing the decision.

YOU GET WHAT YOU MEASURE!

The second key idea in managerial accounting is “You get what you measure!” In other words, performance measures greatly influence the behavior of managers.



You get what you measure!
Performance Measures Drive Behavior



Companies can select from a vast number of performance measures when deciding how they want to assess performance. Profit, market share, sales to new customers, product development time, number of defective units produced, and number of late deliveries are examples of measures in common use. Because rewards often depend on how well an employee performs on a particular measure, employees direct their attention to what is measured and may neglect what isn't measured.

For example, suppose that at Surge Performance Beverage Company, sales to new customers is introduced as a primary measure of the performance of the sales manager. How would this influence the behavior of the sales manager? Most likely, this measure will lead the manager to spend more time developing business with new customers. Although that may be just what senior management wants from the performance measure, it could lead to problems. Suppose a sales manager greatly reduces the time spent attending to the needs of existing customers, and the company loses the business of several key accounts. To avoid this and other unintended consequences, companies need to develop a balanced set of performance measures and avoid placing too much emphasis on any single measure.

LEARNING OBJECTIVE 7

Discuss the impact of information technology on competition, business processes, and the interactions companies have with suppliers and customers.

THE INFORMATION AGE AND MANAGERIAL ACCOUNTING

In recent years, advances in information technology have radically changed access to information and, in consequence, the business landscape—so much so, that the current business era is frequently referred to as the *information age*. Since managerial accounting is about *providing information* in order to plan and control operations and to make decisions, part and parcel of an understanding of managerial accounting is an understanding of the impact of information technology on competition, business processes, and the interactions companies have with suppliers and customers. These topics are discussed in this section.

COMPETITION AND INFORMATION TECHNOLOGY

Business competition since the 1970s has been intense. Deregulation of airlines and banking, dropping of trade barriers in response to both the North American Free Trade Agreement (NAFTA), the Central American Free Trade Agreement (CAFTA), and the organization of the European Union, and economic development in Asia have all played a role. Advances in information technology are also redefining the meaning of intense competition. Consider the impact of exchanges: Web sites that are used to conduct auctions. ChemConnect, for example, operates a public on-line marketplace that brings together buyers and sellers of chemicals and plastics. Using their site, a company can place an order for a plastics stabilizer and receive a bid from a U.S. company in minutes, if not seconds. The problem for the potential U.S. supplier, however, is that it will be bidding against other U.S. companies as well as competitors from Asia and Europe whose prices will also be posted almost instantaneously. Local U.S. companies also face stiff competition from online businesses operating in other states. In many cases, consumers will shop their local store to examine merchandise but then make their purchase over the Internet from an out-of-state company with a lower price. But while advances in information technology have increased competition, they have also created opportunities and cost savings for firms that use information for strategic advantage in dealing with customers, suppliers, and improving internal processes.

THE IMPACT OF INFORMATION TECHNOLOGY ON MANAGEMENT OF THE VALUE CHAIN

The **value chain** comprises a company's internal operations and its relationships and interactions with suppliers and customers that are aimed at creating maximum value for the least possible cost. Illustration 1-5 presents a picture of the

Illustration 1-5

The value chain for Milano Clothiers



value chain for Milano Clothiers. Milano has 35 stores throughout the United States and annual sales of over \$800 million. For Milano to be successful, its suppliers must provide high quality items, on time, to the right location, at a reasonable price. Also, Milano's own operations must be efficient. It must be able to market effectively and offer products that customers want. How can Milano ensure that this happens? The key is to take advantage of information flows up and down the value chain. This is where advances in information technology are having an impact. Note that in Illustration 1-5 the lines between suppliers and Milano and between customers and Milano are dashed lines. This represents the fact that the organizational boundaries are somewhat permeable because a lot of information is being transmitted both ways. Let's see some examples of how this works.

Information Flows between Milano and Customers. When customers make purchases, a Milano employee scans a bar code attached to the sale item thereby automatically transferring the sale information into a database. This information can be used to update inventory records and ensure the company does not run out of "hot" items. The database also provides information on slow moving merchandise that Milano can sell to a discount department store so that it doesn't take up valuable floor space. Further analysis of the sales data can reveal regional tastes in clothes helping Milano to buy the right styles for stores in different parts of the country. Milano may also track the buying patterns of customers who identify themselves by using Milano's credit card or a special customer discount card. This information can help Milano direct targeted selling messages to different customer types via direct-mail advertising.

Information Flows between Milano and Suppliers. With several key suppliers, Milano has set up processes whereby the suppliers monitor Milano's sales of their merchandise using information from Milano's internal data base. Milano shares this information because the suppliers use it to improve their production scheduling, gain efficiencies, and pass along some of the related cost savings to Milano in the form of lower prices. Milano also tracks the status of its orders using its suppliers' Web sites. Thus, Milano knows the exact time merchandise will be arriving at each of its locations, and this information is available any time of the day. Milano uses this information, in part, to time its advertising campaigns.

Using Information Technology to Gain Internal Efficiencies. Internally, Milano uses information technology to automate purchasing and accounts payable, sales and customer billing, as well as other accounting and finance functions. While in the past the company could not close its books until one month after year end, it can now close in a week. This provides senior managers with timely information on the company's profitability and allows the company to provide timely financial

reports to shareholders. The company has over 2,000 employees. Each employee has access to a company human resources (HR) Web site that provides comprehensive information on company policies and allows employees to select from a menu of alternative health and retirement plans. The launch of the Web site has eliminated the need for five full-time HR staff who previously responded to employee questions and processed paperwork.

SOFTWARE SYSTEMS THAT IMPACT VALUE CHAIN MANAGEMENT

Companies use a variety of software systems to process information and improve the operation of the value chain. Here, we'll briefly discuss three systems: Enterprise Resource Planning (ERP) systems, Supply Chain Management (SCM) systems, and Customer Relationship Management systems (CRM).

Enterprise Resource Planning Systems. ERP systems grew out of material requirements planning (MRP) systems that have been used for more than 20 years. MRP systems computerized inventory control and production planning. Key features included an ability to prepare a master production schedule, a bill of materials, and generate purchase orders. ERP systems update MRP systems with better integration, relational databases, and graphical user interfaces. Features now encompass accounting and finance, human resources, and various e-commerce applications including SCM and CRM which are discussed next.

Supply Chain Management Systems. Supply chain management (SCM) is the organization of activities between a company and its suppliers in an effort to provide for the profitable development, production, and delivery of goods to customers. By sharing information, production lead times and inventory holding costs have been reduced, while on-time deliveries to customers have been improved. SCM software systems support the planning of the best way to fill orders and help tracking of products and components among companies in the supply chain. Wal-Mart and Procter & Gamble (P&G) are two companies that have become well known for their cooperation in the use of SCM. When P&G products are scanned at a Wal-Mart store, P&G receives information on the sale via satellite and, thus, knows when to make more product and the specific Wal-Mart stores to which the product should be shipped. Related cost savings are passed on, at least in part, to Wal-Mart customers.

Customer Relationship Management Systems. CRM systems automate customer service and support. They also provide for customer data analysis and support e-commerce storefronts. While CRM is constantly evolving, it has already led to some remarkable changes in the way companies interact with customers. For example, Federal Express allows customers to track their packages on the Web. This service is becoming commonplace, but it didn't exist 10 years ago. Amazon.com uses CRM technology to make suggestions to customers based on their personal purchase histories. The ultimate development of CRM remains to be seen but undoubtedly mobile communication will play a significant role. Many companies are already experimenting with systems to send messages to cell phone users offering them special discounts and buying "opportunities."



TO PRACTICE

Examples of the Impact of SCM

We noted in the text that supply chain management (SCM) systems utilize improved information flows to reduce costs and improve delivery times. As noted by Mitch Myers, vice president of operations at FW Murphy, an instrument manufacturer in Tulsa, information is replacing crude prediction. “We want to be fast and flexible. We don’t want to be dependent on predictions about what’s going to happen, like some psychic on a 1-900 number.” Here are some additional examples of what’s going on with respect to SCM:

1. Dell, long a leader in supply chain management, sends real-time data to suppliers every two hours. Dell is also a leader in rapid inventory turnover.
2. Procter and Gamble is filling retailers’ requests for products as diverse as Pringles and Ivory Soap in less than 72 hours.
3. At Russ Berrie & Co., a manufacturer of specialty gift items such as scented candles, managers receive replenishment information weekly from grocery-store operators. Previously, the company admitted that it based production on educated guesses as to what stores needed.
4. At Memphis-based Smith & Nephew Orthopedics, the company has reduced the turnaround time on one set of medical-implant instruments from six months to two days. The company attributes the improvement to better use of technology. One example—product information is scanned into a handheld device as soon as a surgical procedure is completed. The data is then uploaded into Smith & Nephew’s purchase-order system.

Source: John Goff, “Start With Demand,” *CFO magazine* (January 2005), pp. 53–57.



Describe a framework for ethical decision making.

ETHICAL CONSIDERATIONS IN MANAGERIAL DECISION MAKING

Remember that when we discuss decision making throughout this book, we will focus on incremental analysis as the approach to making good decisions. However, in addition to performing incremental analysis, it is equally important that managers consider the ethical aspects of their decisions. Why focus on ethics? First and foremost, ethical decision making is simply the “right thing to do.” But additionally, when managers behave ethically, they gain the confidence of their customers, suppliers, subordinates, and company stockholders and that confidence is likely to translate into gains to the bottom line and the company stock price.

ETHICAL AND UNETHICAL BEHAVIOR

Ethical behavior requires that managers recognize the difference between what’s right and what’s wrong and then make decisions consistent with what’s right. In recent years, we’ve witnessed a plethora of disclosures, indictments, and convictions,

indicating that key managers in major companies either can't tell right from wrong or don't care to make decisions consistent with what's right. Some examples:

Enron managers mislead investors by hiding debt in so-called special purpose entities. Kenneth Lay, Enron's CEO, touted Enron's stock to employees just weeks before the energy company imploded leaving many with worthless 401(k) retirement accounts.

WorldCom, America's No. 2 long-distance company, disclosed the biggest case of fraudulent accounting in U.S. history with profits overstated by billions. The result—the company declared bankruptcy and began laying off 17,000 employees.

Dennis Kozlowski, who made more than \$300 million as head of Tyco, was charged with conspiring with art dealers to avoid sales tax on art he bought for \$13.2 million. Tyco's share price took a nosedive following the disclosure.

Sam Waksal, co-founder of ImClone Systems, was charged with insider trading for illegally tipping off family members prior to the public disclosure that the Food and Drug Administration had rejected ImClone's cancer drug.

Sarbanes-Oxley Act. The abuses cited above, along with others, led Congress to enact the Sarbanes-Oxley Act in July of 2002. This law, named after Senator Paul Sarbanes and Representative Michael Oxley, has changed the financial reporting landscape for public companies and their auditors. Some of the act's most important provisions are:

- A requirement that Chief Executive Officers and Chief Financial Officers of a company certify that, based on their knowledge, their financial statements do not contain any untrue statements or omissions of material facts that would make the statements misleading.
- A ban on certain types of work by the company's auditors to ensure their independence. For example, the act bans auditors from performing bookkeeping services and designing or implementing financial information systems for clients.

Andrew Fastow testifies as a witness in the Kenneth Lay trial.



- Longer jail sentences and larger fines for corporate executives who knowingly and willfully misstate financial statements. Fines now run up to \$5 million and jail terms up to 20 years.
- A requirement that companies report on the existence and reliability of their internal controls as they relate to financial reports.

The cost of complying with Sarbanes-Oxley has been substantial. According to a survey conducted by Charles River Associates of 90 companies with average annual gross revenue of \$8.1 billion, the average cost to comply with the act in the first year was \$7.8 million. This amount should be contrasted with the \$63 billion lost by shareholders in Enron. Will the net benefits of Sarbanes-Oxley outweigh the costs? Time will tell. There is no doubt, however, that the act has reminded corporate leaders that they have a clear obligation to ensure that financial statements do not mislead investors. And the act has put needed distance between senior managers and auditors of publicly traded companies.

In addition to conspicuous and rather clear-cut examples of unethical behavior, some companies and individuals have been accused of paying unconscionably low wages to workers in Third World countries, using child labor, endangering the environment with toxic chemicals, and bribing officials to promote sales abroad. But are these accusations clearly indicative of ethical lapses? Low wages are better than no wages, and, while child labor is reprehensible, the additional income earned by a child may save a family from starvation. The point is that ethical dilemmas are often complex and the situations managers face are often gray rather than black and white. When this is the case, a framework for ethical decision making may help understanding of “what’s right.”

A FRAMEWORK FOR ETHICAL DECISION MAKING

The following framework for ethical decision making consists of seven questions.¹ Hopefully, answering these questions will serve as an aid in identifying “what’s right.” But certainly, answering them doesn’t guarantee ethical decision making.

A Seven-Question Framework for Ethical Decision Making

When evaluating a decision, ask:

1. What decision alternatives are available?
2. What individuals or organizations have a stake in the outcome of my decision?
3. Will an individual or an organization be harmed by any of the alternatives?
4. Which alternative will do the most good with the least harm?
5. Would someone I respect find any of the alternatives objectionable?

After deciding on a course of action, but before taking action, ask:

6. At a “gut level,” am I comfortable with the decision I am about to make?
7. Will I be comfortable telling my friends and family about this decision?

¹Developing these questions was aided by three resources located on the Web. The first is *A Guide to Moral Decision Making* by Chris MacDonald in the Department of Bioethics at Dalhousie University (<http://www.ethics.ubc.ca/chrismac/publications/guide.html>). The second is material developed by the *Center for Applied Ethics* at the University of British Columbia (<http://www.ethics.ubc.ca/resources/business/>), and the third is *Complete Guide to Ethics Management: An Ethics Toolkit for Managers*, by Carter MacNamara (<http://www.mapnp.org/library/ethics/ethxgde.htm>).

Any Questions?

- Q** Why focus on the Seven-Question Framework for ethical decision making? Many, if not most, companies have a written code of ethics, so when managers make decisions, they just need to consult their company's code to determine if their decision stacks up to what's right in their company's environment.
- A** Managers should definitely be familiar with their company's code of ethics. However, codes of ethics aren't always a good guide to ethical behavior. Part of the problem is that codes often specify what can't be done rather than what should be done. And some codes focus more on ensuring that decisions are legal rather than right!

A number of exercises, problems, and cases in the end-of-chapter material present ethical dilemmas, and you should refer to this framework when preparing your answers to them. Alternatively, you may wish to consider other ethical perspectives. A large amount of material is available on the Web to help your understanding of ethical decision making.

IMA STATEMENT OF ETHICAL PROFESSIONAL PRACTICE

The Institute of Management Accounting (IMA) is a professional organization that focuses, as its name indicates, on management accounting. One of the contributions of the IMA is the development of a Statement of Ethical Professional Practice which is presented in the Appendix to this chapter. The IMA has also developed an ethics helpline that members can call to discuss ethical dilemmas they face at their companies. Callers are assigned a code number to preserve anonymity and are then referred to a counselor who explains how the dilemma relates to the provisions of the standards of ethical professional practice.

The IMA also publishes *Strategic Finance* and *Management Accounting Quarterly*, and since 1973 it has conducted a comprehensive examination to test what knowledge a management accountant must have in order to be successful in a complex and fast-changing business world. More than 3,000 individuals take the exam each year. Those who pass the exam are issued a Certificate in Management Accounting and are proud to indicate the designation CMA on resumes and business cards. For details on student and professional memberships in the IMA and information on the CMA examination, visit the IMA Web site (www.imanet.org).

LEARNING OBJECTIVE **9**

Discuss the duties of the controller, the treasurer, the chief information officer (CIO), and the chief financial officer (CFO).

THE CONTROLLER AS THE TOP MANAGEMENT ACCOUNTANT

Who is responsible for preparing the information needed for planning, control, and decision making? In most organizations, the top managerial accounting position is held by the controller. The **controller** prepares reports for planning and evaluating company activities (e.g., budgets and performance reports) and pro-

vides the information needed to make management decisions (e.g., decisions related to purchasing office equipment or decisions related to adding or dropping a product). The controller also has responsibility for all financial accounting reports and tax filings with the Internal Revenue Service and other taxing agencies, as well as coordinating the activities of the firm's external auditors.

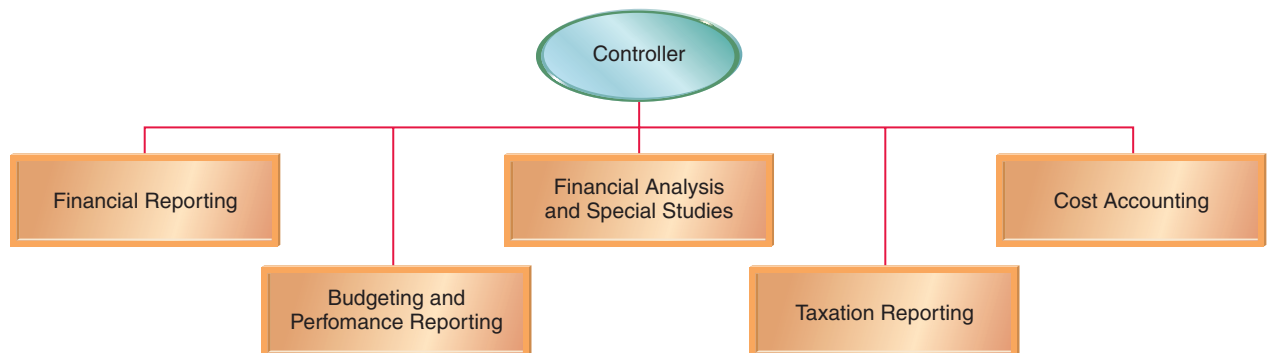
A simplified example of the organization chart for the controller's office is shown in Illustration 1-6. Note that one of the areas reporting to the controller is cost accounting. Most medium-sized and large manufacturing companies have such a department. Cost accountants estimate costs to facilitate management decisions and develop cost information for purposes of valuing inventory.

Many companies seeking to fill the position of controller send a clear message to applicants; "Bean counters need not apply!" This means that they want a managerial accountant who does more than concentrate on tracking costs ("counting beans"). They want an individual who will be an integral part of the top management team.

It is obvious that if you want a high-level career in managerial accounting you will need strong accounting skills. But this is not enough. To be an important player on the management team, you will need the skills required of all high-level executives: excellent written and oral communication skills, solid interpersonal skills, and a deep knowledge of the industry in which your firm competes.

In addition to the position of controller, many companies have positions called treasurer and chief information officer (CIO). The **treasurer** has custody of cash and funds invested in various marketable securities. In addition to money management duties, the treasurer is generally responsible for maintaining relationships with investors, banks, and other creditors. Thus, the treasurer plays a major role in managing cash and marketable securities, preparing cash forecasts, and obtaining financing from banks and other lenders. The **chief information officer (CIO)** is the person responsible for a company's information technology and computer systems. Both the controller and the treasurer report to the **chief financial officer (CFO)** who is the senior executive responsible for both accounting and financial operations. At some companies, the CIO also reports to the CFO. However, as we saw earlier, information technology is playing a critical role in managing the value chain and, therefore, it's not surprising that the CIO is frequently part of the senior management team reporting directly to the chief executive officer (CEO).

Illustration 1-6
Organization chart for the
controller's office



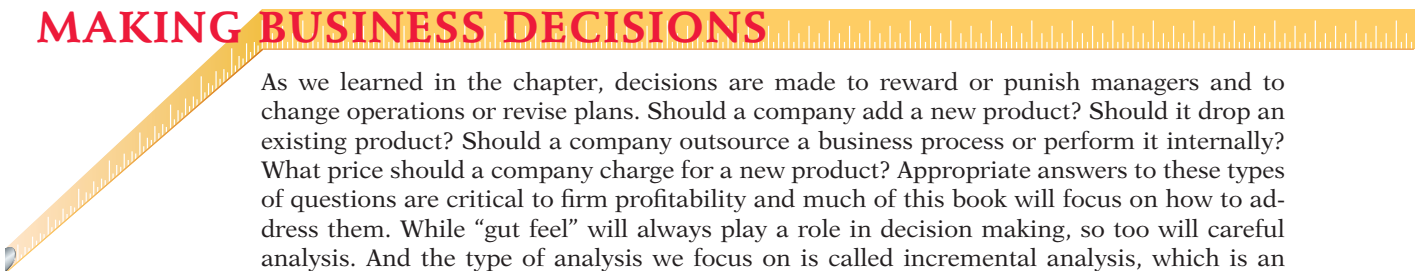
 LINK TO PRACTICE

Japanese Companies Creating a New Executive Position – The CFO!

Unlike their U.S. counterparts, most Japanese companies don't have a chief financial officer (CFO), but the situation is changing. In 1999, Sony hired its first CFO and in 2002, Fujitsu, a large chip and computer company, did the same. Why the move to a CFO position? A lot has to do with Japan's economic woes over the last several years. The number of Japanese companies that failed in 2002 is at the third highest level since the 1940s. Also, Japan's banks have their own financial problems, and no longer lend funds to companies just because they are part of the same *keiretsu* (a group of corporations that holds shares in each other's companies and provides mutual support). In this environment, the need for an executive who understands financial markets and who can communicate with investors is crucial, so more and more Japanese companies are hiring their first CFO.

Source: CFO, The Magazine for Senior Financial Executives, Carla Rapoport, July 2002, p. 54–58.

MAKING BUSINESS DECISIONS



As we learned in the chapter, decisions are made to reward or punish managers and to change operations or revise plans. Should a company add a new product? Should it drop an existing product? Should a company outsource a business process or perform it internally? What price should a company charge for a new product? Appropriate answers to these types of questions are critical to firm profitability and much of this book will focus on how to address them. While “gut feel” will always play a role in decision making, so too will careful analysis. And the type of analysis we focus on is called incremental analysis, which is an analysis of the costs and revenues that change when one decision alternative is selected over another.

KNOWLEDGE AND SKILLS (K/S) CHECKLIST

Knowledge and skills are needed to make good business decisions. Check off the knowledge and skills you've acquired from reading this chapter.

- ☐ K/S 1. You have an expanded business vocabulary (see key terms).
- ☐ K/S 2. You understand that incremental analysis is used in decision making.
- ☐ K/S 3. You have a framework for ethical decision making.
- ☐ K/S 4. You know that performance measures impact manager behaviors.
- ☐ K/S 5. You understand that information technology is having a major impact on information flows up and down the value chain.

S U M M A R Y O F L E A R N I N G O B J E C T I V E S

- 1 **State the primary goal of managerial accounting.** The primary goal of managerial accounting is to provide information that helps managers plan and control company activities and make business decisions.
- 2 **Describe how budgets are used in planning.** The financial plans prepared by managerial accountants are referred to as budgets. These plans help employees understand company goals and what resources are needed to achieve them.
- 3 **Describe how performance reports are used in the control process.** Control of organizations is achieved by evaluating the performance of managers and the operations for which they are responsible. The reports used to evaluate the performance of managers and the operations they control are referred to as performance reports. Frequently, the reports compare current period performance with performance in a prior period or to planned (budgeted) performance. Since evaluations affect the rewards and punishments managers receive, the evaluation process causes them to work hard to receive good evaluations. Evaluations may also lead to modifications in operations, as needed.
- 4 **Distinguish between financial and managerial accounting.** Managerial accounting differs from financial accounting in many ways. A key difference is that managerial accounting stresses information that is useful to firm managers, whereas financial accounting stresses information that is useful to external parties. In addition, financial accounting information must be prepared in accordance with GAAP, but managerial accounting information need not be.
- 5 **Define cost terms used in planning, control, and decision making.** A number of cost terms are used in discussing planning, control, and decision making. The terms include: *variable cost* (a cost that changes in response to a change in business activity), *fixed cost* (a cost that does not change in response to a change in business activity), *sunk cost* (a cost incurred in the past), *opportunity cost* (a benefit foregone by selecting one decision alternative over another), *direct cost* (a cost that is directly traceable to a product, activity, or department), *indirect cost* (a cost that is not directly traceable to a product, activity, or department or is not worth tracing), *controllable cost* (a cost that a manager can influence), and *noncontrollable cost* (a cost that a manager cannot influence).
- 6 **Explain the two key ideas in managerial accounting.** The first key idea is that “decision making relies on incremental analysis.” This means that the solution to business problems involves the calculation of the difference in revenue (incremental revenue) and the difference in costs (incremental costs) between decision alternatives. The second key idea is that “you get what you measure!” In other words, how companies measure performance affects how managers behave. This can create problems if managers spend too much time focused on any single performance measure.
- 7 **Discuss the impact of information technology on competition, business processes, and the interactions companies have with suppliers and customers.** Information technology (IT) allows buyers to reach suppliers with whom, in the past, it would have been too costly to contract. This has had a great impact on competition. Information technology is also having a profound effect on the entire value chain. Companies use IT to coordinate activities with suppliers and to gain information on customers. IT is also being used to improve the internal processes of companies.
- 8 **Describe a framework for ethical decision making.** The framework for ethical decision making consists of seven questions. See page 19.
- 9 **Discuss the duties of the controller, the treasurer, the chief information officer, and the chief financial officer.** The controller is the top management accountant in most organizations. The controller is responsible for preparing reports for planning and evaluating company activities and for preparing information and reports needed to make management decisions. In contrast to the controller, the treasurer is responsible for maintaining relationships with investors, banks, and other creditors. The treasurer also has custody of cash and funds invested in various marketable securities. The chief information officer (CIO) is responsible for information technology. The controller and the treasurer report to the chief financial officer (CFO), who is the senior executive responsible for accounting and financial operations. The chief information officer (CIO) has historically reported to the CFO, but the trend is to have the CIO report to the chief executive officer (CEO).

A P P E N D I X

IMA STATEMENT OF ETHICAL PROFESSIONAL PRACTICE*

Members of IMA shall behave ethically. A commitment to ethical professional practice includes: overarching principles that express our values, and standards that guide our conduct.

PRINCIPLES

IMA's overarching ethical principles include: Honesty, Fairness, Objectivity, and Responsibility. Members shall act in accordance with these principles and shall encourage others within their organizations to adhere to them.

STANDARDS

A member's failure to comply with the following standards may result in disciplinary action.

I. Competence. Each member has a responsibility to:

1. Maintain an appropriate level of professional expertise by continually developing knowledge and skills.
2. Perform professional duties in accordance with relevant laws, regulations, and technical standards.
3. Provide decision support information and recommendations that are accurate, clear, concise, and timely.
4. Recognize and communicate professional limitations or other constraints that would preclude responsible judgment or successful performance of an activity.

II. Confidentiality. Each member has a responsibility to:

1. Keep information confidential except when disclosure is authorized or legally required.
2. Inform all relevant parties regarding appropriate use of confidential information. Monitor subordinates' activities to ensure compliance.
3. Refrain from using confidential information for unethical or illegal advantage.

III. Integrity. Each member has a responsibility to:

1. Mitigate actual conflicts of interest. Regularly communicate with business associates to avoid apparent conflicts of interest. Advise all parties of any potential conflicts.
2. Refrain from engaging in any conduct that would prejudice carrying out duties ethically.
3. Abstain from engaging in or supporting any activity that might discredit the profession.

*Institute of Management Accountants Statement of Ethical Professional Practice, Adapted with permission.

IV. Credibility. Each member has a responsibility to:

1. Communicate information fairly and objectively.
2. Disclose all relevant information that could reasonably be expected to influence an intended user's understanding of the reports, analyses, or recommendations.
3. Disclose delays or deficiencies in information, timeliness, processing, or internal controls in conformance with organization policy and/or applicable law.

RESOLUTION OF ETHICAL CONFLICT

In applying the Standards of Ethical Professional Practice, you may encounter problems identifying unethical behavior or resolving an ethical conflict. When faced with ethical issues, you should follow your organization's established policies on the resolution of such conflict. If these policies do not resolve the ethical conflict, you should consider the following courses of action:

1. Discuss the issue with your immediate supervisor except when it appears that the supervisor is involved. In that case, present the issue to the next level. If you cannot achieve a satisfactory resolution, submit the issue to the next management level. If your immediate superior is the chief executive officer or equivalent, the acceptable reviewing authority may be a group such as the audit committee, executive committee, board of directors, board of trustees, or owners. Contact with levels above the immediate superior should be initiated only with your superior's knowledge, assuming he or she is not involved. Communication of such problems to authorities or individuals not employed or engaged by the organization is not considered appropriate, unless you believe there is a clear violation of the law.
2. Clarify relevant ethical issues by initiating a confidential discussion with an IMA Ethics Counselor or other impartial advisor to obtain a better understanding of possible courses of action.
3. Consult your own attorney as to legal obligations and rights concerning the ethical conflict.

KEY TERMS

Budget (4)	Enterprise resource planning (ERP) systems (16)	Noncontrollable costs (11)
Chief financial officer (CFO) (21)	Fixed costs (10)	Opportunity costs (10)
Chief information officer (CIO) (21)	Incremental analysis (12)	Performance report (5)
Controllable cost (11)	Incremental costs (12)	Supply chain management (SCM) systems (16)
Controller (20)	Incremental revenue (12)	Sunk costs (10)
Customer relationship management (CRM) systems (16)	Indirect costs (10)	Treasurer (21)
Direct cost (10)	Management by exception (7)	Value chain (14)
	Managerial accounting (4)	Variable costs (9)

SELF ASSESSMENT *(Answers Below)*

1. The primary goal of managerial accounting is to:
 - a. Provide information to current and potential investors in the company.
 - b. Provide information to creditors as well as current and prospective investors.
 - c. Provide information to creditors, taxing authorities, and current and prospective investors.
 - d. Provide information for planning, control, and decision making.
2. Match the following terms with the management activities described below:
 - a. Planning.
 - b. Control.
 - c. Decision Making.
 - (1) This management activity involves changing operations, revising plans, or rewarding/punishing managers.
 - (2) This management activity compares actual results with planned outcomes as a basis for corrective action.
 - (3) This management activity formulates goals, communicates them to employees, and specifies the resources needed to achieve them.
3. Which of the following statements about budgets is false?
 - a. Budgets may be expressed in dollars, quantities, or both.
 - b. Budgets may reflect projected revenues, projected expenses, projected cash flows, or projected quantities of inputs or outputs.
 - c. Budgets must be prepared in accordance with GAAP.
 - d. Budgets are useful both for planning and control.
4. Which of the following statements is false?
 - a. Managerial accounting statements do not necessarily comply with GAAP.
 - b. Financial accounting statements normally reflect more detail than would be found in managerial accounting reports.
 - c. Managerial accounting reports emphasize future activities and future costs.
 - d. Financial accounting data are directed primarily at external users rather than internal users.
5. Which of the following is most likely to be a variable cost?
 - a. Depreciation.
 - b. The cost of material used in production.
 - c. Rent.
 - d. Advertising.
6. Which of the following is most likely to be a fixed cost?
 - a. The cost of material used in production.
 - b. Rent.
 - c. Assembly labor cost.
 - d. Commissions.
7. Costs incurred in the past are:
 - a. Opportunity costs.
 - b. Direct costs.
 - c. Sunk costs.
 - d. Variable costs.
8. _____ costs are directly traceable to a product, activity, or department, whereas _____ costs are not.
9. The salary a student forgoes while in college is an example of:
 - a. Opportunity cost.
 - b. Direct cost.
 - c. Sunk cost.
 - d. Variable cost.
10. Which of the following is not one of the seven questions in the framework for ethical decision making?
 - a. Will an individual or an organization be harmed by any of the decision alternatives?
 - b. Would someone I respect find any of the alternatives objectionable?
 - c. At a "gut" level, am I comfortable with the decision I am about to make?
 - d. Are any of the alternatives illegal?

Answers to Self Assessment

1. d; 2. 1-c, 2-b, 3-a; 3. c; 4. b; 5. b;
6. b; 7. c; 8. Direct, indirect; 9. a; 10. d.

INTERACTIVE LEARNING



Enhance and test your knowledge of Chapter 1 using Wiley's online resources.

1. Learning Objectives
2. Multiple Choice
3. Language of Business—Matching of Key Terms
4. Critical Thinking
5. Demonstration—Planning and control process
6. Case—ValuComp Computers; Planning and control process
7. Video—Wizards of the Coast; Use of managerial accounting

Go to our dynamic Web site for more self-assessment, Web links, and additional information.

QUESTIONS



1. What is the goal of managerial accounting?
2. In a performance report, current period performance is compared with some benchmark. What might be a useful benchmark?
3. List three differences between financial and managerial accounting.
4. List three examples of nonmonetary information that might appear in a managerial accounting report.
5. Explain the difference between fixed and variable costs.
6. Consider the manager of the home appliance department at a Sears store. For this manager, list a cost that is controllable and a cost that is non-controllable.
7. What is incremental analysis? How is the concept used in decision making?
8. What is meant by the statement "You get what you measure!"?
9. How have changes in information technology impacted management of the value chain?
10. If an action is legal, is it necessarily ethical? Explain.

EXERCISES



EXERCISE 1-1. Group Assignment A key idea in this book is that *You get what you measure!* Essentially, this means that performance measures have a great influence on the behavior of managers.

Required

Select a company with which you are familiar. Identify three performance measures that the company might use. For each measure, identify a favorable outcome and an unfavorable outcome that might occur because the measure is used to evaluate manager performance.



EXERCISE 1-2. Writing Assignment Rachel Cook owns Campus Copies, a copy business with several high-speed copy machines. One is a color copier that was purchased just last year at a cost of \$25,000. Recently a salesperson got Nancy to witness a demo of a new \$23,000 color copier that promises higher speed and more accurate color representation. Nancy's interested but she can't get herself to trade in a perfectly good copier for which she paid \$25,000 and replace it with one that will only cost \$23,000.

Required

Write a paragraph explaining why the cost of the "old" copier is irrelevant to Rachel's decision.



EXERCISE 1-3. Ethics/Internet Assignment Guthrie Wilson is an accountant at Bellwether Systems, a company that sells and installs customer relationship management (CRM) systems. The company sells third-party software at cost plus 20 percent and charges a fee of \$200 per hour of installation/integration time spent on each engagement. Recently, Guthrie's boss asked him to charge 60 hours of time to the Bradley account when the time was actually worked servicing the IMG account. The rationale: "Look, IMG is a struggling start-up and they can barely afford our service. We ran over our time estimate due to some unforeseen problems, and they'll balk if we charge them for all of our time. Bradley, on the other hand, is a highly profitable company and we're providing services that are going to make them even more profitable.

They'll have no problem with their bill."

Required

Go to the Web site for the Institute of Management Accounting (<http://www.imanet.org>). Click on About IMA and go to their Ethics Center. Click on the code of ethics and examine the IMA's ethical standards. What do the standards suggest that Guthrie should do to resolve the issue he's facing?

EXERCISE 1-4. Budgets Megan Kelly is the chief financial officer of a chain of 25 drugstores. Explain how she can use budgets in both planning profit and controlling operations.

EXERCISE 1-5. Performance Reports Which of the following statements related to performance reports is false?

- ☐ a. Performance reports may provide a comparison of actual performance with planned performance.
- ☐ b. Performance reports may provide a comparison of actual performance with performance in a prior period.
- ☐ c. If actual costs exceed planned costs in a performance report, this clearly indicates managerial incompetence.
- ☐ d. Performance reports are used to evaluate managers and the operations they control.

EXERCISE 1-6. Performance Reports At Designs by Deirdre, the budgeted income statement for December, 2008 indicated sales of \$500,000 and cost of sales of \$300,000. Actual sales and cost of sales were \$600,000 and \$325,000, respectively. Should Deirdre Nelson, owner of the company, be concerned that cost of sales is \$25,000 greater than planned? Explain the basis for your answer.

EXERCISE 1-7. Financial vs. Managerial Accounting Consider a large manufacturing company like Boeing that rewards its sales force with bonuses based on sales. For this purpose, should the company record sales when orders are placed or, to be consistent with GAAP, wait until orders are delivered?

EXERCISE 1-8. Cost Terms Identify each of the following statements with fixed costs or variable costs.

- _____ a. A cost that varies in total with changes in the activity level.
- _____ b. A cost that varies on a per-unit basis with changes in the activity level.
- _____ c. A cost that remains fixed per unit with changes in the activity level.
- _____ d. A cost that remains fixed in total with changes in the activity level.

EXERCISE 1-9. Cost Terms Indicate whether each of the following costs is most likely a fixed cost or a variable cost.

- _____ a. Assembly labor.
- _____ b. The cost of material used in production.
- _____ c. Rent.
- _____ d. Depreciation.
- _____ e. Fuel cost at an airline.

EXERCISE 1-10. Cost Terms Explain how a cost can be controllable at one administrative level and noncontrollable at another administrative level.

EXERCISE 1-11. Sunk Cost Peter Takesha, the manager of testing services at a medical diagnostics firm, purchased a new lab testing machine last year for \$25,000. This year a new machine, which is faster and more reliable than Peter's current model, is available in the market. In deciding whether or not to purchase the new machine, should Peter consider how much he paid for the old machine? Should Peter consider the value of the old machine in the used equipment market?

EXERCISE 1-12. Opportunity Costs Parrish Plumbing provides plumbing services to residential customers from Monday through Friday. Ken Parrish, the owner, believes that it is important for his employees to have Saturday and Sunday off to spend with their families. However, he also recognizes that this policy has implications for profitability, and he is considering staying open on Saturday.

Ken estimates that if his company stays open on Saturday, it can generate \$2,000 of daily revenue each day for 52 days per year. The incremental daily costs will be \$600 for labor, \$400 for parts, \$40 for transportation, and \$100 for office staff. These costs do not include a share of monthly rent, or a share of depreciation related to office equipment.

Ken is determined not to have employees work on Sunday, but he would like to know the opportunity cost of not working on Saturday. Provide Ken with an estimate of the opportunity cost, and explain why you do not have to consider rent or depreciation of office equipment in your estimate.

EXERCISE 1-13. Opportunity Cost Zachary made plans to visit a friend in New York during the Memorial Day weekend. However, before the trip his employer asked him if he would work overtime for 16 hours at \$30 per hour during the weekend. What will be the opportunity cost if Zachary decides to visit his friend in New York?

EXERCISE 1-14. Incremental Analysis Wilmington Chemicals produces a chemical, PX44, which is used to retard fading in exterior house paint. In the past year, the company produced 200,000 gallons at a total cost of \$1,000,000 (\$5 per gallon). The company is currently considering an order for 10,000 gallons from a paint company in Canada (to date, Wilmington has not sold the product in markets outside the United States). Explain why the incremental cost associated with this order is likely to be less than \$50,000.

EXERCISE 1-15. Incremental Analysis In the past year, Williams Mold & Machine had sales of \$8,000,000 and total production costs of \$6,000,000. In the coming year, the company believes that sales and production can be increased by 30 percent, but this will require adding a second production shift to work from 4:00 P.M. to 1:00 A.M.

Required

- Indicate three production costs that are likely to increase because of adding a second production shift.
- What production cost most likely will not increase when the second shift is added?

EXERCISE 1-16. You Get What You Measure! At the start of the current year, Ben Abbot, president of Abbot Products, told his managers that the company was going to begin tracking two new performance measures: customer satisfaction measured via a survey, and percent of orders delivered at the customer request date. Are these new measures likely to affect the behavior of managers? Suggest four possible responses.

EXERCISE 1-17. Information Age In recent years, successful companies have begun to focus on managing cross-company processes with suppliers to reduce costs, increase speed, and improve quality. In its print advertisements, J.D. Edwards, a producer of ERP software systems, notes that companies must “collaborate or die.”

Required

Pick a company and discuss how it can collaborate with key suppliers to achieve mutually beneficial outcomes. Your discussion should indicate how information technology can play a role in collaboration.

EXERCISE 1-18. Career Connection Select one or two concepts from this chapter and describe how you might use those concepts in your future career. Briefly describe the career or job you will be performing. Then, specifically describe the type of situation for which the concept could be applied. Also include a discussion of how use of the concept would allow you to make informed decisions or improve your job performance. Envision specific instances where these concepts would be useful to you.

PROBLEMS



PROBLEM 1-1. Budgets in Managerial Accounting Santiago's Salsa is in the process of preparing a production cost budget for May. Actual costs in April were:

**Santiago's Salsa
Production Costs
April 2008**

Production	20,000 Jars of Salsa
Ingredient cost (variable)	\$16,000
Labor cost (variable)	9,000
Rent (fixed)	4,000
Depreciation (fixed)	6,000
Other (fixed)	1,000
Total	<u>\$36,000</u>

Required

- Using this information, prepare a budget for May. Assume that production will increase to 22,000 jars of salsa, reflecting an anticipated sales increase related to a new marketing campaign.
- Does the budget suggest that additional workers are needed? Suppose the wage rate is \$20 per hour. How many additional labor hours are needed in May? What would happen if management did not anticipate the need for additional labor in May?
- Calculate the actual cost per unit in April and the budgeted cost per unit in May. Explain why the cost per unit is expected to decrease.



PROBLEM 1-2. Incremental Analysis Consider the production cost information for Santiago's Salsa in problem 1. The company is currently producing and selling 250,000 jars of salsa annually. The jars sell for \$4.00 each. The company is considering lowering the price to \$3.70. Suppose this action will increase sales to 300,000 jars.

Required

- What is the incremental cost associated with producing an extra 50,000 jars of salsa?
- What is the incremental revenue associated with the price reduction of \$0.30 per jar?
- Should Santiago's lower the price of its salsa?

PROBLEM 1-3. Budgets in Managerial Accounting Matthew Gabon, the sales manager of Office Furniture Solutions, prepared the following budget for 2008:

**Sales Department
Budgeted Costs, 2008
(Assuming Sales of \$12,000,000)**

Salaries (fixed)	\$500,000
Commissions (variable)	180,000
Advertising (fixed)	100,000
Charge for office space (fixed)	2,000
Office supplies & forms (variable)	2,400
Total	<u>\$784,400</u>

After he submitted his budget, the president of Office Furniture Solutions reviewed it and recommended that advertising be increased to \$120,000. Further, she wanted Matthew to assume a sales level of \$13,000,000. This level of sales is to be achieved without adding to the sales force.

Matthew's sales group occupies approximately 250 square feet of office space out of total administrative office space of 20,000 square feet. The \$2,000 space charge in Matthew's budget is his share (allocated based on relative square feet) of the company's total cost of rent, utilities, and janitorial costs for the administrative office building.

Required

Prepare a revised budget consistent with the president's recommendation.

PROBLEM 1-4. Performance Reports Below is a performance report that compares budgeted and actual profit in the sporting goods department of Maxwell's Department Store for the month of December.

**Maxwell's Department Store
Sporting Goods
Performance Report
December 2008**

	Budget	Actual	Difference
Sales	\$600,000	\$675,000	\$75,000
Less:			
Cost of merchandise	300,000	375,000	75,000
Salaries of sales staff	<u>60,000</u>	<u>68,000</u>	<u>8,000</u>
Controllable profit	<u>\$240,000</u>	<u>\$232,000</u>	<u>(\$ 8,000)</u>

Required

- Evaluate the department in terms of its increases in sales and expenses. Do you believe it would be useful to investigate either or both of the increases in expenses?
- Consider storewide electricity cost. Would this cost be a controllable or a noncontrollable cost for the manager of sporting goods? Would it be useful to include a share of storewide electricity cost on the performance report for sporting goods?

PROBLEM 1-5. Performance Reports At the end of 2008, Cyril Fedako, CFO for Fedako Products, received a report comparing budgeted and actual production costs for the company's plant in Forest Lake, Minnesota:

**Manufacturing Costs
Forest Lake Plant
Budget versus Actual 2008**

	Budget	Actual	Difference (Actual minus Budget)
Materials	\$3,000,000	\$3,300,000	\$300,000
Direct labor	2,100,000	2,300,000	200,000
Supervisory salaries	375,000	400,000	25,000
Utilities	75,000	85,000	10,000
Machine maintenance	250,000	280,000	30,000
Depreciation of building	50,000	50,000	-0-
Depreciation of equipment	200,000	205,000	5,000
Janitorial	<u>120,000</u>	<u>135,000</u>	<u>15,000</u>
Total	<u>\$6,170,000</u>	<u>\$6,755,000</u>	<u>\$585,000</u>

His first thought was that costs must be out of control since actual costs exceed the budget by \$585,000. However, he quickly recalled that the budget was set assuming a production level of 50,000 units. The Forest Lake plant actually produced 55,000 units in 2008.

Required

- Given that production was greater than planned, should Cyril expect that all actual costs will be greater than budgeted? Which costs would you expect to increase, and which costs would you expect to remain relatively constant?
- Cyril is extremely busy—the company has six other plants. Therefore, he cannot spend time investigating every departure from the budget. With this in mind, which cost(s) should Cyril concentrate on in his investigation of budget differences?

PROBLEM 1-6. Financial vs. Managerial Accounting SweetTreats.com sells specialty cakes and cookies over the Internet. In its first two years of business the com-

pany had relatively high sales but also suffered large losses. The company's income statement for the most recent two years are as follows:

	2008	2007
Sales	\$5,860,340	\$1,393,500
Cost of sales	<u>4,568,421</u>	<u>1,165,247</u>
Gross profit	<u>1,291,919</u>	<u>228,253</u>
Selling, general and administrative expenses:		
Payroll and payroll taxes	945,672	654,783
Option-based compensation	485,622	125,367
Occupancy & office expenses	523,160	321,456
Contract services and professional fees	704,880	436,050
Internet servicing expenses	201,458	136,598
General and administrative expenses	687,482	359,657
Advertising and promotion	<u>1,257,863</u>	<u>684,571</u>
Depreciation and amortization	<u>19,875</u>	<u>12,458</u>
Total	<u>4,826,012</u>	<u>2,730,940</u>
(Loss) from operations	<u><u>(\$3,534,093)</u></u>	<u><u>(\$2,502,687)</u></u>

Required

- Assume you are a senior manager for SweetTreats.com. What forward-looking information would you like to see in addition to the income statement?
- For internal reporting purposes, the company has capitalized certain costs related to employee training and advertising. Management's view is that these costs have increased the value of an important asset—the company's brand name. Would this be allowed for external reporting purposes under GAAP?
- Is the information in the income statement sufficiently detailed for management's needs? Provide four examples of more detailed information that managers would likely request.
- Suggest three nonmonetary measures that would be useful to managers of SweetTreats.com but are not included in external financial reports.
- SweetTreats.com currently reports its income statement on its Web site. Why might management of SweetTreats.com be reluctant to present nonmonetary information along with the income statement on the company's Web site?

PROBLEM 1-7. You get what you measure! Each year, the president of Smart-Toys selects a single performance measure, and offers significant financial bonuses to all key employees if the company achieves a 10 percent improvement on the measure in comparison to the prior year. She recently expressed the opinion that “this focuses my managers on a single, specific target and gets them all working together to achieve a major objective that will increase shareholder value.”

Sarabeth Robbins is a new member of the company's board of directors, and she has begun to question the president's approach to rewarding performance. In particular, she is concerned that placing too much emphasis on a single performance measure may lead managers to take actions that increase performance in terms of the measure but decrease the value of the firm.

Required

- What negative consequence might occur if the performance measure is *sales to new customers* $\div$ *total sales* in the current year versus the prior year? (Note: To receive a bonus, managers would need to increase this ratio compared with the prior year.)
- What negative consequence might occur if the performance measure is *cost of goods sold* $\div$ *sales* in the current year versus the prior year? (Note: To receive a bonus, managers would need to decrease this ratio compared with the prior year.)

c. What negative consequence might occur if the performance measure is *selling and administrative expenses* ÷ *sales* in the current year versus the prior year? (Note: To receive a bonus, managers would need to decrease this ratio compared with the prior year.)

PROBLEM 1-8. Incremental Analysis The Riverview Hotel is a deluxe four-star establishment. Late on Friday, it had 10 of its 400 rooms available when the desk clerk received a call from the Pines Hotel. The Pines Hotel made a booking error, and did not have room for four guests (each of whom had a “confirmed” room). The Pines wants to send their customers to the Riverview, but pay the rate the guests would have been charged at the Pines (\$150 per room) rather than paying the normal rate of \$250 per room at the Riverview.

Required

- If the Riverview accepts the guests, what will be the incremental revenue?
- Provide examples of incremental costs that the Riverview will incur if it accepts the guests.
- In your opinion, will the incremental revenue be greater than the incremental cost?

CASES



1-1 LOCAL 635

Local 635 represents kitchen workers at hotels in several Southern cities. Part of their labor agreement states that workers “shall receive one free meal per shift up to a cost of \$10, with any cost over \$10 being deducted from wages paid to said employee.”

A labor dispute arose at the Riverside Hotel shortly after it was opened in June. Kitchen workers who ate dinner on the late shift found that their wages were reduced by \$8 for each meal they consumed at the hotel during their dinner break. Josh Parker, a line cook, stated the widely held belief of the workers, “There’s no way these dinners cost the Riverside Hotel \$10 to make, let alone \$18. This is just another case of management trying to rip us off. Take last night. I had the prime rib dinner. The piece of meat cost about \$6 and the salad less than \$1. That’s only \$7 in total. Really, there aren’t any other costs to speak of. The cook, well he’s going to be working in the kitchen and getting paid for eight hours whether he makes my meal or not. This claim that my meal cost \$18 is baloney!”

Management of the Riverside Hotel sees the situation differently. Take the case of Josh’s dinner. In presenting the hotel’s case to a labor arbitration board,

Sandy Ross, manager of the hotel, explained, “Look, that dinner goes for \$30 on the menu so assigning a cost of \$18 represents a very good value to the kitchen workers. The contention that the meal only costs \$7 is nonsense. True, the meat costs \$6 and the salad ingredients cost \$1, but there’s also the labor costs related to preparing the meal and numerous overhead costs like the cost of the oven that the prime rib is cooked in. That oven cost more than \$18,000. And, there’s heat, light, power, etc. Each meal we prepare should be assigned part of these overhead costs. And, don’t forget that when the worker finishes his or her meal, someone has to clean up. That costs money too. When you add up all of these items, a prime rib dinner easily adds up to \$18!”

Required

- List examples of costs at the Riverside Hotel that are variable, fixed, and sunk. Provide an example of an opportunity cost.
- What is the source of conflict between labor and management? What changes would you recommend in the wording of the labor agreement?

1-2 Boswell Plumbing Products

Boswell Plumbing Products produces a variety of valves, connectors, and fixtures used in commercial and residential plumbing applications. Recently, a senior manager walked into the cost accounting department and asked Nick Somner to tell her the cost of the D45 valve. Nick quickly replied, “Why do you want to know?” Noticing that the manager appeared somewhat startled by this statement, he explained, “The cost information you need depends on the decision you’re going to make. You might be thinking of in-

creasing a scheduled production run of 3,000 D45s by 100 units, or scheduling an additional production run, or you might even be thinking of dropping the product. For each of these decisions, the ‘cost’ information that you need is different.”

Required

Using the concept of incremental analysis, expand on Nick’s response of “Why do you want to know?” What cost information would be relevant to a decision to drop the product that would not be relevant to a decision to increase a production run by 100 units?