

**7-15** Distinguish between operating expenses and disbursements for operating expenses.

**7-16** What is the principal objective of a cash budget?

**7-17** "Education and salesmanship are key features of budgeting." Explain.

**7-18** What are the main differences between functional and activity-based budgets?

**7-19** "Financial planning models guide managers through the budget process so that managers do not really need to understand budgeting." Do you agree? Explain.

**7-20** Study Appendix 7. "I cannot be bothered with setting up my monthly budget on a spreadsheet. It just takes too long to be worth the effort." Comment.

**7-21** Study Appendix 7. How do spreadsheets aid the application of sensitivity analysis?

## Critical Thinking Exercises

### Budgets as Limitations on Spending

Many nonprofit organizations use budgets primarily to limit spending. Why does this limit the effectiveness of budgets?

### 7-23 Sales Personnel and Budgeting

The sales budget is the foundation of the entire master budget. How do sales personnel help formulate the budget? Compare the role of sales personnel to that of a central staff function, such as market research.

### 7-24 Master Budgets for Research and Development

The text focuses on budgets for organizations that have revenues and expenses. Suppose you were the manager of a research and development division of a biotech company that has no revenue. How would budgets be helpful to you?

### 7-25 Production Budgets and Performance Evaluation

The Akron plant of American Tire Company prepares an annual master budget each November for the following year. At the end of each year, it compares the actual costs incurred to the budgeted costs. How can American Tire get employees to accept the budget and strive to meet or beat the budgeted costs?

## Exercises

### 7-26 Fill In the Blanks

Enter the word or phrase that best completes each sentence.

1. The financial budget process includes the following budgets:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_

2. The master budget process usually begins with the \_\_\_\_\_ budget.

3. A \_\_\_\_\_ budget is a plan that is revised monthly or quarterly, dropping one period and adding another.

4. Strategic planning sets the \_\_\_\_\_.

### 7-27 Cash Budgeting

Blake Henderson and Anna Kraft are preparing a plan to submit to venture capitalists to fund their business, Education Solutions. The company plans to spend \$380,000 on equipment in the first quarter of 2008. Salaries and other operating expenses (paid as incurred) will be \$35,000 per month beginning in January 2008 and will continue at that level thereafter. The company will receive its first revenues in January 2009, with cash collections averaging \$30,000 per month for all of 2009. In January 2010, cash collections are expected to increase to \$100,000 per month and continue at that level thereafter.

Assume that the company needs enough funding to cover all its cash needs until cash receipts start exceeding cash disbursements. How much venture capital funding should Blake and Anna seek?

**7-28 Purchases and Cost of Goods Sold**

Premier Products, a wholesaler of fishing equipment, budgeted the following sales for the indicated months:

	June 2008	July 2008	August 2008
Sales on account	\$1,820,000	\$1,960,000	\$2,100,000
Cash sales	<u>240,000</u>	<u>250,000</u>	<u>260,000</u>
Total sales	<u>\$2,060,000</u>	<u>\$2,210,000</u>	<u>\$2,360,000</u>

All merchandise is marked up to sell at its invoice cost plus 25%. Target merchandise inventories at the beginning of each month are 30% of that month's projected cost of goods sold.

1. Compute the budgeted cost of goods sold for the month of June 2008.
2. Compute the budgeted merchandise purchases for July 2008.

**7-29 Purchases and Sales Budgets**

All sales of Carol's Jeans and Uniforms (CJU) are made on credit. Sales are billed twice monthly, on the fifth of the month for the last half of the prior month's sales and on the twentieth of the month for the first half of the current month's sales. For accounts paid within the first 10 days after the billing date, CJU gives customers a 2% discount; otherwise the full amount is due within 30 days of the billing date, and customers that do not pay within the 10-day discount period generally wait the full 30 days before making payment. Based on past experience, the collection experience of accounts receivable is:

Within the 10-day discount period	80%
At 30 days after billing	18%
Uncollectible	2%

Sales for May 20X8 were \$750,000. The forecast sales for the next four months are

June	\$800,000
July	900,000
August	900,000
September	600,000

CJU's average markup on its products is 40% of the sales price.

CJU purchases merchandise for resale to meet the current month's sales demand and to maintain a desired monthly ending inventory of 25% of the next month's cost of goods sold. All purchases are on credit. CJU pays for one-half of a month's purchases in the month of purchase and the other half in the month following the purchase.

All sales and purchases occur uniformly throughout the month.

1. How much cash can CJU plan to collect from accounts receivable collections during July 20X8?
2. Compute the budgeted dollar value of CJU inventory on May 31, 20X8.
3. How much merchandise should CJU plan to purchase during June 20X8?
4. How much should CJU budget in August 20X8 for cash payments for merchandise purchased?

**7-30 Sales Budget**

Suppose a Gap store has the following data:

- Accounts receivable, May 31:  $(.3 \times \text{May sales of } \$350,000) = \$105,000$
- Monthly forecasted sales: June, \$410,000; July, \$440,000; August, \$500,000; September, \$530,000

Sales consist of 70% cash and 30% credit. All credit accounts are collected in the month following the sales. Uncollectible accounts are negligible and may be ignored.

Prepare a sales budget schedule and a cash collections budget schedule for June, July, and August.

**7-31 Sales Budget**

A Kyoto clothing wholesaler was preparing its sales budget for the first quarter of 2008. Forecast sales are (in thousands of yen)

January	¥200,000
February	¥220,000
March	¥240,000

Sales are 20% cash and 80% on credit. Fifty percent of the credit accounts are collected in the month of sale, 40% in the month following the sale, and 10% in the following month. No uncollectible accounts are anticipated. Accounts receivable at the beginning of 2008 are ¥96 million (10% of November credit sales of ¥180 million and 50% of December credit sales of ¥156 million).

Prepare a schedule showing sales and cash collections for January, February, and March, 2008.

### 7-32 Cash Collection Budget

Anacortes Antiques offers a 2% discount to customers who pay cash at the time of sale and a 1% discount to customers who pay within the first 10 days of the month after sale. Past experience shows that cash collections from customers tend to occur in the following pattern:

Cash collected at time of sale	50%
Collected within cash discount period in first 10 days of month after sale	10
Collected after cash discount period in first month after month of sale	25
Collected after cash discount period in second month after month of sale	12
Never collected	3

Compute the total cash budgeted to be collected in March if sales forecasts are \$360,000 for January, \$400,000 for February, and \$450,000 for March.

### 7-33 Purchases Budget

Adobo Lighting Emporium plans inventory levels (at cost) at the end of each month as follows: May, \$275,000; June, \$220,000; July, \$270,000; and August, \$240,000.

Sales are expected to be June, \$440,000; July, \$350,000; and August, \$420,000. Cost of goods sold is 60% of sales.

Purchases in April were \$250,000; in May, \$180,000. Payments for each month's purchases are made as follows: 10% during that month; 80% the next month; and the final 10% the next month.

Prepare budget schedules for June, July, and August for purchases and for disbursements for purchases.

### 7-34 Purchases Budget

Linkenheim GmbH has adopted the following policies regarding merchandise purchases and inventory. At the end of any month, the inventory should be €15,000 plus 90% of the cost of goods to be sold during the following month. The cost of merchandise sold averages 60% of sales. Purchase terms are generally net 30 days. A given month's purchases are paid as follows: 20% during that month and 80% during the following month.

Purchases in May had been €150,000 and the inventory on May 31 was higher than planned at €210,000. The manager was upset because the inventory was too high. Sales are expected to be June, €300,000; July, €290,000; August, €340,000; and September, €400,000.

1. Compute the amount by which the inventory on May 31 exceeded the company's policies.
2. Prepare budget schedules for June, July, and August for purchases and for disbursements for purchases.

### 7-35 Cash Budget

Consider the budgeted income statement for Carlson Company for June 20X4 in Exhibit 7-13.

The cash balance, May 31, 20X4, is \$15,000.

Sales proceeds are collected as follows: 80% month of sale, 10% second month, 10% third month.

Accounts receivable are \$44,000 on May 31, 20X4, consisting of \$20,000 from April sales and \$24,000 from May sales.

Accounts payable on May 31, 20X4, are \$145,000.

Carlson Company pays 25% of purchases during the month of purchase and the remainder during the following month.

All operating expenses requiring cash are paid during the month of recognition, except that insurance and property taxes are paid annually in December for the forthcoming year.

Prepare a cash budget for June. Confine your analysis to the given data. Ignore income taxes.

**Exhibit 7-13**

Carlson Company  
Budgeted Income  
Statement for the  
Month Ended June 30,  
20X4 (in thousands)

Sales		\$290
Inventory, May 31	\$ 50	
Purchases	<u>192</u>	
Available for sale	242	
Inventory, June 30	<u>40</u>	
Cost of goods sold		<u>202</u>
Gross margin		\$ 88
Operating expenses		
Wages	\$ 36	
Utilities	5	
Advertising	10	
Depreciation	1	
Office expenses	4	
Insurance and property taxes	<u>3</u>	
Operating income		<u>\$ 29</u>

**Problems****7-36 Cash Budget**

Daniel Merrill is the manager of an airport gift shop, Merrill News and Gifts. From the following data, Mr. Merrill wants a cash budget showing expected cash receipts and disbursements for the month of April, and the cash balance expected as of April 30, 20X7.

- Planned cash balance, March 31, 20X7: \$100,000
- Customer receivables as of March 31: \$530,000 total, where \$80,000 from February sales, \$450,000 from March sales
- Accounts payable, March 31: \$460,000
- Merchandise purchases for April: \$450,000, 40% paid in month of purchase, 60% paid in next month
- Payrolls due in April: \$90,000
- Other expenses for April, payable in April: \$45,000
- Accrued taxes for April, payable in June: \$7,500
- Bank note due April 10: \$90,000 plus \$7,200 interest
- Depreciation for April: \$2,100
- Two-year insurance policy due April 14 for renewal: \$1,500, to be paid in cash
- Sales for April: \$1,000,000, half collected in month of sale, 40% in next month, 10% in third month

Prepare the cash budget for the month ending April 30, 20X7.

**7-37 Cash Budget**

Prepare a statement of estimated cash receipts and disbursements for October 20X7 for the Botanica Company, which sells one product, herbal soap, by the case. On October 1, 20X7, part of the trial balance showed

	DR	CR
Cash	\$ 4,800	
Accounts receivable	15,600	
Allowance for bad debts		\$1,900
Merchandise inventory	9,000	
Accounts payable, merchandise		6,600

The company pays for its purchases within 10 days of purchase so assume that one-third of the purchases of any month are due and paid for in the following month.

The cost of the merchandise purchased is \$12 per case. At the end of each month, it is desired to have an inventory equal in units to 50% of the following month's sales in units.

Sales terms include a 1% discount if payment is made by the end of the calendar month. Past experience indicates that 60% of sales will be collected during the month of the sale, 30% in the following calendar month, 6% in the next following calendar month, and the remaining 4% will be uncollectible. The company's fiscal year begins August 1.