

Chapter 9

Profit Planning

Solutions to Questions

9-1 A budget is a detailed quantitative plan for the acquisition and use of financial and other resources over a given time period. Budgetary control involves using budgets to increase the likelihood that all parts of an organization are working together to achieve the goals set down in the planning stage.

9-2

1. Budgets communicate management's plans throughout the organization.
2. Budgets force managers to think about and plan for the future. In the absence of the necessity to prepare a budget, many managers would spend all of their time dealing with day-to-day emergencies.
3. The budgeting process provides a means of allocating resources to those parts of the organization where they can be used most effectively.
4. The budgeting process can uncover potential bottlenecks before they occur.
5. Budgets coordinate the activities of the entire organization by integrating the plans of its various parts. Budgeting helps to ensure that everyone in the organization is pulling in the same direction.
6. Budgets define goals and objectives that can serve as benchmarks for evaluating subsequent performance.

9-3 Responsibility accounting is a system in which a manager is held responsible for those items of revenues and costs—and only those items—that the manager can control to a significant extent. Each line item in the budget is made the responsibility of a manager who is

then held responsible for differences between budgeted and actual results.

9-4 A master budget represents a summary of all of management's plans and goals for the future, and outlines the way in which these plans are to be accomplished. The master budget is composed of a number of smaller, specific budgets encompassing sales, production, raw materials, direct labor, manufacturing overhead, selling and administrative expenses, and inventories. The master budget usually also contains a budgeted income statement, budgeted balance sheet, and cash budget.

9-5 The level of sales impacts virtually every other aspect of the firm's activities. It determines the production budget, cash collections, cash disbursements, and selling and administrative budget that in turn determine the cash budget and budgeted income statement and balance sheet.

9-6 No. Planning and control are different, although related, concepts. Planning involves developing goals and developing budgets to achieve those goals. Control, by contrast, involves the means by which management attempts to ensure that the goals set down at the planning stage are attained.

9-7 The flow of budgeting information moves in two directions—upward and downward. The initial flow should be from the bottom of the organization upward. Each person having responsibility over revenues or costs should prepare the budget data against which

his or her subsequent performance will be measured. As the budget data are communicated upward, higher-level managers should review the budgets for consistency with the overall goals of the organization and the plans of other units in the organization. Any issues should be resolved in discussions between the individuals who prepared the budgets and their managers.

All levels of an organization should participate in the budgeting process—not just top management or the accounting department. Generally, the lower levels will be more familiar with detailed, day-to-day operating data, and for this reason will have primary responsibility for developing the specifics in the budget. Top levels of management should have a better perspective concerning the company's strategy.

9-8 A self-imposed budget is one in which persons with responsibility over cost control prepare their own budgets. This is in contrast to a budget that is imposed from above. The major advantages of a self-imposed budget are: (1) Individuals at all levels of the organization are recognized as members of the team whose views and judgments are valued. (2) Budget estimates prepared by front-line managers are often more accurate and reliable than estimates prepared by top managers who have less intimate knowledge of markets and day-to-day

operations. (3) Motivation is generally higher when individuals participate in setting their own goals than when the goals are imposed from above. Self-imposed budgets create commitment. (4) A manager who is not able to meet a budget that has been imposed from above can always say that the budget was unrealistic and impossible to meet. With a self-imposed budget, this excuse is not available.

Self-imposed budgets do carry with them the risk of budgetary slack. The budgets prepared by lower-level managers should be carefully reviewed to prevent too much slack.

9-9 The direct labor budget and other budgets can be used to forecast workforce staffing needs. Careful planning can help a company avoid erratic hiring and laying off of employees.

9-10 The principal purpose of the cash budget is NOT to see how much cash the company will have in the bank at the end of the year. Although this is one of the purposes of the cash budget, the principal purpose is to provide information on probable cash needs *during* the budget period, so that bank loans and other sources of financing can be anticipated and arranged well in advance.

Exercise 9-1 (20 minutes)

1.	<i>April</i>	<i>May</i>	<i>June</i>	<i>Total</i>
February sales:				
\$230,000 × 10%.....	\$ 23,000			\$ 23,000
March sales: \$260,000				
× 70%, 10%.....	182,000	\$ 26,000		208,000
April sales: \$300,000 ×				
20%, 70%, 10%.....	60,000	210,000	\$ 30,000	300,000
May sales: \$500,000 ×				
20%, 70%.....		100,000	350,000	450,000
June sales: \$200,000 ×				
20%.....			<u>40,000</u>	<u>40,000</u>
Total cash collections.....	<u>\$265,000</u>	<u>\$336,000</u>	<u>\$420,000</u>	<u>\$1,021,000</u>

Observe that even though sales peak in May, cash collections peak in June. This occurs because the bulk of the company's customers pay in the month following sale. The lag in collections that this creates is even more pronounced in some companies. Indeed, it is not unusual for a company to have the least cash available in the months when sales are greatest.

2. Accounts receivable at June 30:

From May sales: \$500,000 × 10%.....	\$ 50,000
From June sales: \$200,000 × (70% + 10%).....	<u>160,000</u>
Total accounts receivable at June 30.....	<u>\$210,000</u>

Exercise 9-2 (10 minutes)

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Budgeted sales in units.....	50,000	75,000	90,000	215,000
Add desired ending inventory*..	<u>7,500</u>	<u>9,000</u>	<u>8,000</u>	<u>8,000</u>
Total needs.....	57,500	84,000	98,000	223,000
Less beginning inventory.....	<u>5,000</u>	<u>7,500</u>	<u>9,000</u>	<u>5,000</u>
Required production.....	<u>52,500</u>	<u>76,500</u>	<u>89,000</u>	<u>218,000</u>

*10% of the following month's sales in units.

Exercise 9-3 (15 minutes)

	Year 2				Year 3
	<i>First</i>	<i>Second</i>	<i>Third</i>	<i>Fourth</i>	<i>First</i>
Required production in bottles.....	60,000	90,000	150,000	100,000	70,000
Number of grams per bottle.....	<u>× 3</u>	<u>× 3</u>	<u>× 3</u>	<u>× 3</u>	<u>× 3</u>
Total production needs—grams.....	<u>180,000</u>	<u>270,000</u>	<u>450,000</u>	<u>300,000</u>	<u>210,000</u>

	Year 2				Year
	<i>First</i>	<i>Second</i>	<i>Third</i>	<i>Fourth</i>	
Production needs—grams (above).....	180,000	270,000	450,000	300,000	1,200,000
Add desired ending inventory—grams.....	<u>54,000</u>	<u>90,000</u>	<u>60,000</u>	<u>42,000</u>	<u>42,000</u>
Total needs—grams.....	234,000	360,000	510,000	342,000	1,242,000
Less beginning inventory—grams.....	<u>36,000</u>	<u>54,000</u>	<u>90,000</u>	<u>60,000</u>	<u>36,000</u>
Raw materials to be purchased—grams.....	<u>198,000</u>	<u>306,000</u>	<u>420,000</u>	<u>282,000</u>	<u>1,206,000</u>
Cost of raw materials to be purchased at 150 roubles per kilogram.....	<u>29,700</u>	<u>45,900</u>	<u>63,000</u>	<u>42,300</u>	<u>180,900</u>

Exercise 9-4 (20 minutes)

1. Assuming that the direct labor workforce is adjusted each quarter, the direct labor budget is:

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Units to be produced.....	8,000	6,500	7,000	7,500	29,000
Direct labor time per unit (hours).....	<u>× 0.35</u>	<u>× 0.35</u>	<u>× 0.35</u>	<u>× 0.35</u>	<u>× 0.35</u>
Total direct labor-hours needed.....	2,800	2,275	2,450	2,625	10,150
Direct labor cost per hour.....	<u>× \$12.00</u>	<u>× \$12.00</u>	<u>× \$12.00</u>	<u>× \$12.00</u>	<u>× \$12.00</u>
Total direct labor cost.....	<u>\$ 33,600</u>	<u>\$ 27,300</u>	<u>\$ 29,400</u>	<u>\$ 31,500</u>	<u>\$121,800</u>

2. Assuming that the direct labor workforce is not adjusted each quarter and that overtime wages are paid, the direct labor budget is:

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Units to be produced.....	8,000	6,500	7,000	7,500	
Direct labor time per unit (hours).....	<u>× 0.35</u>	<u>× 0.35</u>	<u>× 0.35</u>	<u>× 0.35</u>	
Total direct labor-hours needed.....	2,800	2,275	2,450	2,625	
Regular hours paid.....	<u>2,600</u>	<u>2,600</u>	<u>2,600</u>	<u>2,600</u>	
Overtime hours paid.....	<u>200</u>	<u>0</u>	<u>0</u>	<u>25</u>	
Wages for regular hours (@ \$12.00 per hour).	\$31,200	\$31,200	\$31,200	\$31,200	\$124,800
Overtime wages (@ 1.5 × \$12.00 per hour).....	<u>3,600</u>	<u>0</u>	<u>0</u>	<u>450</u>	<u>4,050</u>
Total direct labor cost.....	<u>\$34,800</u>	<u>\$31,200</u>	<u>\$31,200</u>	<u>\$31,650</u>	<u>\$128,850</u>

Exercise 9-5 (15 minutes)

1.

Yuvwell Corporation
Manufacturing Overhead Budget

	<i>1st</i>	<i>2nd</i>	<i>3rd</i>	<i>4th</i>	<i>Year</i>
	<i>Quarter</i>	<i>Quarter</i>	<i>Quarter</i>	<i>Quarter</i>	
Budgeted direct labor-hours.....	8,000	8,200	8,500	7,800	32,500
Variable overhead rate.....	<u>× \$3.25</u>	<u>× \$3.25</u>	<u>× \$3.25</u>	<u>× \$3.25</u>	<u>× \$3.25</u>
Variable manufacturing overhead.....	\$26,000	\$26,650	\$27,625	\$25,350	\$105,625
Fixed manufacturing overhead.....	<u>48,000</u>	<u>48,000</u>	<u>48,000</u>	<u>48,000</u>	<u>192,000</u>
Total manufacturing overhead.....	74,000	74,650	75,625	73,350	297,625
Less depreciation.....	<u>16,000</u>	<u>16,000</u>	<u>16,000</u>	<u>16,000</u>	<u>64,000</u>
Cash disbursements for manufacturing overhead.	<u>\$58,000</u>	<u>\$58,650</u>	<u>\$59,625</u>	<u>\$57,350</u>	<u>\$233,625</u>

2. Total budgeted manufacturing overhead for the year (a).... \$297,625
 Total budgeted direct labor-hours for the year (b)..... 32,500
 Manufacturing overhead rate for the year (a) ÷ (b)..... \$ 9.16

Exercise 9-6 (15 minutes)

Weller Company
Selling and Administrative Expense Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Budgeted unit sales.....	15,000	16,000	14,000	13,000	58,000
Variable selling and administrative expense per unit.....	<u>× \$2.50</u>	<u>× \$2.50</u>	<u>× \$2.50</u>	<u>× \$2.50</u>	<u>× \$2.50</u>
Variable expense.....	<u>\$ 37,500</u>	<u>\$ 40,000</u>	<u>\$ 35,000</u>	<u>\$ 32,500</u>	<u>\$145,000</u>
Fixed selling and administrative expenses:					
Advertising.....	8,000	8,000	8,000	8,000	32,000
Executive salaries.....	35,000	35,000	35,000	35,000	140,000
Insurance.....	5,000		5,000		10,000
Property taxes.....		8,000			8,000
Depreciation.....	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>	<u>80,000</u>
Total fixed expense.....	<u>68,000</u>	<u>71,000</u>	<u>68,000</u>	<u>63,000</u>	<u>270,000</u>
Total selling and administrative expenses.....	105,500	111,000	103,000	95,500	415,000
Less depreciation.....	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>	<u>20,000</u>	<u>80,000</u>
Cash disbursements for selling and administrative expenses.....	<u>\$ 85,500</u>	<u>\$ 91,000</u>	<u>\$ 83,000</u>	<u>\$ 75,500</u>	<u>\$335,000</u>

Exercise 9-7 (15 minutes)

Garden Depot Cash Budget					
	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Cash balance, beginning.....	\$ 20,000	\$ 10,000	\$ 35,800	\$ 25,800	\$ 20,000
Total cash receipts.....	<u>180,000</u>	<u>330,000</u>	<u>210,000</u>	<u>230,000</u>	<u>950,000</u>
Total cash available.....	200,000	340,000	245,800	255,800	970,000
Less total cash disbursements.....	<u>260,000</u>	<u>230,000</u>	<u>220,000</u>	<u>240,000</u>	<u>950,000</u>
Excess (deficiency) of cash available over disbursements.....	<u>(60,000)</u>	<u>110,000</u>	<u>25,800</u>	<u>15,800</u>	<u>20,000</u>
Financing:					
Borrowings (at beginnings of quarters)*.....	70,000				70,000
Repayments (at ends of quarters).....		(70,000)			(70,000)
Interest [§]		(4,200)			(4,200)
Total financing.....	<u>70,000</u>	<u>(74,200)</u>			<u>(4,200)</u>
Cash balance, ending. .	<u>\$ 10,000</u>	<u>\$ 35,800</u>	<u>\$ 25,800</u>	<u>\$ 15,800</u>	<u>\$ 15,800</u>

* Since the deficiency of cash available over disbursements is \$60,000, the company must borrow \$70,000 to maintain the desired ending cash balance of \$10,000.

§ $\$70,000 \times 3\% \times 2 = \$4,200$.

Exercise 9-8 (10 minutes)

Gig Harbor Boating
Budgeted Income Statement

Sales (460 units × \$1,950 per unit).....	\$897,000
Cost of goods sold (460 units × \$1,575 per unit).....	<u>724,500</u>
Gross margin.....	172,500
Selling and administrative expenses*.....	<u>139,500</u>
Net operating income.....	33,000
Interest expense.....	<u>14,000</u>
Net income.....	<u>\$ 19,000</u>

* (460 units × \$75 per unit) + \$105,000 = \$139,500.

Exercise 9-9 (15 minutes)

Mecca Copy
Budgeted Balance Sheet

Assets

Current assets:

Cash*	\$12,200	
Accounts receivable.....	8,100	
Supplies inventory.....	<u>3,200</u>	
Total current assets.....		\$23,500
Plant and equipment:		
Equipment.....	34,000	
Accumulated depreciation.....	<u>(16,000)</u>	
Plant and equipment, net.....		<u>18,000</u>
Total assets.....		<u>\$41,500</u>

Liabilities and Stockholders' Equity

Current liabilities:

Accounts payable.....		\$ 1,800
Stockholders' equity:		
Common stock.....	\$ 5,000	
Retained earnings#.....	<u>34,700</u>	
Total stockholders' equity.....		<u>39,700</u>
Total liabilities and stockholders' equity. .		<u>\$41,500</u>

* Plug figure.

# Retained earnings, beginning balance.	\$28,000
Add net income.....	<u>11,500</u>
	39,500
Deduct dividends.....	<u>4,800</u>
Retained earnings, ending balance.....	<u>\$34,700</u>

Exercise 9-10 (20 minutes)

	Quarter (000 omitted)				Year
	1	2	3	4	
Cash balance, beginning.....	\$ 6 *	\$ 5	\$ 5	\$ 5	\$ 6
Add collections from customers.....	<u>65</u>	<u>70</u>	<u>96</u> *	<u>92</u>	<u>323</u> *
Total cash available.....	<u>71</u> *	<u>75</u>	<u>101</u>	<u>97</u>	<u>329</u>
Less disbursements:					
Purchase of inventory.....	35 *	45 *	48	35 *	163
Selling and administrative expenses.....	28	30 *	30 *	25	113 *
Equipment purchases.....	8 *	8 *	10 *	10	36 *
Dividends.....	<u>2</u> *	<u>2</u> *	<u>2</u> *	<u>2</u> *	<u>8</u>
Total disbursements.....	<u>73</u>	<u>85</u> *	<u>90</u>	<u>72</u>	<u>320</u>
Excess (deficiency) of cash available over disbursements.....	<u>(2)</u> *	<u>(10)</u>	<u>11</u> *	<u>25</u>	<u>9</u>
Financing:					
Borrowings.....	7	15 *	0	0	22
Repayments (including interest).....	<u>0</u>	<u>0</u>	<u>(6)</u>	<u>(17)</u> *	<u>(23)</u>
Total financing.....	<u>7</u>	<u>15</u>	<u>(6)</u>	<u>(17)</u>	<u>(1)</u>
Cash balance, ending.....	<u>\$ 5</u>	<u>\$ 5</u>	<u>\$ 5</u>	<u>\$ 8</u>	<u>\$ 8</u>

*Given.

Exercise 9-11 (30 minutes)

1.

Gaeber Industries
Production Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Budgeted unit sales.....	8,000	7,000	6,000	7,000	28,000
Add desired ending inventory..	<u>1,400</u>	<u>1,200</u>	<u>1,400</u>	<u>1,700</u>	<u>1,700</u>
Total units needed.....	9,400	8,200	7,400	8,700	29,700
Less beginning inventory.....	<u>1,600</u>	<u>1,400</u>	<u>1,200</u>	<u>1,400</u>	<u>1,600</u>
Required production.....	<u>7,800</u>	<u>6,800</u>	<u>6,200</u>	<u>7,300</u>	<u>28,100</u>

Exercise 9-11 (continued)

2.

Gaeber Industries
Direct Materials Budget

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Required production.....	7,800	6,800	6,200	7,300	28,100
Raw materials per unit.....	<u>× 2</u>	<u>× 2</u>	<u>× 2</u>	<u>× 2</u>	<u>× 2</u>
Production needs.....	15,600	13,600	12,400	14,600	56,200
Add desired ending inventory.....	<u>2,720</u>	<u>2,480</u>	<u>2,920</u>	<u>3,140</u>	<u>3,140</u>
Total needs.....	18,320	16,080	15,320	17,740	59,340
Less beginning inventory.....	<u>3,120</u>	<u>2,720</u>	<u>2,480</u>	<u>2,920</u>	<u>3,120</u>
Raw materials to be purchased.....	<u>15,200</u>	<u>13,360</u>	<u>12,840</u>	<u>14,820</u>	<u>56,220</u>
Cost of raw materials to be purchased at \$4.00 per pound.....	<u>\$60,800</u>	<u>\$53,440</u>	<u>\$51,360</u>	<u>\$59,280</u>	<u>\$224,880</u>

Schedule of Expected Cash Disbursements for Materials

Accounts payable, beginning balance.	\$14,820				\$ 14,820
1st Quarter purchases.....	45,600	\$15,200			60,800
2nd Quarter purchases.....		40,080	\$13,360		53,440
3rd Quarter purchases.....			38,520	\$12,840	51,360
4th Quarter purchases.....	<u> </u>	<u> </u>	<u> </u>	<u>44,460</u>	<u>44,460</u>
Total cash disbursements for materials.....	<u>\$60,420</u>	<u>\$55,280</u>	<u>\$51,880</u>	<u>\$57,300</u>	<u>\$224,880</u>

Exercise 9-12 (30 minutes)

1.

Jessi Corporation
Sales Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Budgeted unit sales.....	11,000	12,000	14,000	13,000	50,000
Selling price per unit.....	<u>× \$18.00</u>	<u>× \$18.00</u>	<u>× \$18.00</u>	<u>× \$18.00</u>	<u>× \$18.00</u>
Total sales.....	<u>\$198,000</u>	<u>\$216,000</u>	<u>\$252,000</u>	<u>\$234,000</u>	<u>\$900,000</u>

Schedule of Expected Cash Collections

Accounts receivable, beginning balance.....	\$ 70,200				\$ 70,200
1 st Quarter sales.....	128,700	\$ 59,400			188,100
2 nd Quarter sales.....		140,400	\$ 64,800		205,200
3 rd Quarter sales.....			163,800	\$ 75,600	239,400
4 th Quarter sales.....				152,100	152,100
Total cash collections.....	<u>\$198,900</u>	<u>\$199,800</u>	<u>\$228,600</u>	<u>\$227,700</u>	<u>\$855,000</u>

Exercise 9-12 (continued)

2.

Jessi Corporation
Production Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Budgeted unit sales.....	11,000	12,000	14,000	13,000	50,000
Add desired ending inventory..	<u>1,800</u>	<u>2,100</u>	<u>1,950</u>	<u>1,850</u>	<u>1,850</u>
Total units needed.....	12,800	14,100	15,950	14,850	51,850
Less beginning inventory.....	<u>1,650</u>	<u>1,800</u>	<u>2,100</u>	<u>1,950</u>	<u>1,650</u>
Required production.....	<u>11,150</u>	<u>12,300</u>	<u>13,850</u>	<u>12,900</u>	<u>50,200</u>

Exercise 9-13 (30 minutes)

1.

Hareston Company
Direct Materials Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Required production.....	7,000	8,000	6,000	5,000	26,000
Raw materials per unit.....	<u>× 2</u>	<u>× 2</u>	<u>× 2</u>	<u>× 2</u>	<u>× 2</u>
Production needs.....	14,000	16,000	12,000	10,000	52,000
Add desired ending inventory.....	<u>1,600</u>	<u>1,200</u>	<u>1,000</u>	<u>1,500</u>	<u>1,500</u>
Total needs.....	15,600	17,200	13,000	11,500	53,500
Less beginning inventory.....	<u>1,400</u>	<u>1,600</u>	<u>1,200</u>	<u>1,000</u>	<u>1,400</u>
Raw materials to be purchased.....	<u>14,200</u>	<u>15,600</u>	<u>11,800</u>	<u>10,500</u>	<u>52,100</u>
Cost of raw materials to be purchased at \$1.40 per pound.....	<u>\$19,880</u>	<u>\$21,840</u>	<u>\$16,520</u>	<u>\$14,700</u>	<u>\$72,940</u>

Schedule of Expected Cash Disbursements for Materials

Accounts payable, beginning balance.....	\$ 2,940				\$ 2,940
1st Quarter purchases.....	15,904	\$ 3,976			19,880
2nd Quarter purchases.....		17,472	\$ 4,368		21,840
3rd Quarter purchases.....			13,216	\$ 3,304	16,520
4th Quarter purchases.....				<u>11,760</u>	<u>11,760</u>
Total cash disbursements for materials...	<u>\$18,844</u>	<u>\$21,448</u>	<u>\$17,584</u>	<u>\$15,064</u>	<u>\$72,940</u>

Exercise 9-13 (continued)

2.

Hareston Company
Direct Labor Budget

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Units to be produced.....	7,000	8,000	6,000	5,000	26,000
Direct labor time per unit (hours).....	<u>× 0.60</u>	<u>× 0.60</u>	<u>× 0.60</u>	<u>× 0.60</u>	<u>× 0.60</u>
Total direct labor-hours needed.....	4,200	4,800	3,600	3,000	15,600
Direct labor cost per hour.....	<u>× \$14.00</u>	<u>× \$14.00</u>	<u>× \$14.00</u>	<u>× \$14.00</u>	<u>× \$14.00</u>
Total direct labor cost.....	<u>\$ 58,800</u>	<u>\$ 67,200</u>	<u>\$ 50,400</u>	<u>\$ 42,000</u>	<u>\$218,400</u>

Exercise 9-14 (30 minutes)

1.

Raredon Corporation
Direct Labor Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Units to be produced.....	12,000	14,000	13,000	11,000	50,000
Direct labor time per unit (hours).....	<u>× 0.70</u>	<u>× 0.70</u>	<u>× 0.70</u>	<u>× 0.70</u>	<u>× 0.70</u>
Total direct labor-hours needed.....	8,400	9,800	9,100	7,700	35,000
Direct labor cost per hour.....	<u>× \$10.50</u>	<u>× \$10.50</u>	<u>× \$10.50</u>	<u>× \$10.50</u>	<u>× \$10.50</u>
Total direct labor cost.....	<u>\$ 88,200</u>	<u>\$102,900</u>	<u>\$ 95,550</u>	<u>\$ 80,850</u>	<u>\$367,500</u>

2.

Raredon Corporation
Manufacturing Overhead Budget

	<i>1st</i> <i>Quarter</i>	<i>2nd</i> <i>Quarter</i>	<i>3rd</i> <i>Quarter</i>	<i>4th</i> <i>Quarter</i>	<i>Year</i>
Budgeted direct labor-hours.....	8,400	9,800	9,100	7,700	35,000
Variable overhead rate.....	<u>× \$1.50</u>	<u>× \$1.50</u>	<u>× \$1.50</u>	<u>× \$1.50</u>	<u>× \$1.50</u>
Variable manufacturing overhead.....	\$12,600	\$14,700	\$13,650	\$11,550	\$ 52,500
Fixed manufacturing overhead.....	<u>80,000</u>	<u>80,000</u>	<u>80,000</u>	<u>80,000</u>	<u>320,000</u>
Total manufacturing overhead.....	92,600	94,700	93,650	91,550	372,500
Less depreciation.....	<u>22,000</u>	<u>22,000</u>	<u>22,000</u>	<u>22,000</u>	<u>88,000</u>
Cash disbursements for manufacturing overhead.....	<u>\$70,600</u>	<u>\$72,700</u>	<u>\$71,650</u>	<u>\$69,550</u>	<u>\$284,500</u>

Problem 9-15 (45 minutes)

1. Production budget:

	<i>July</i>	<i>August</i>	<i>Septem-ber</i>	<i>October</i>
Budgeted sales (units).....	35,000	40,000	50,000	30,000
Add desired ending inventory.	<u>11,000</u>	<u>13,000</u>	<u>9,000</u>	<u>7,000</u>
Total needs.....	46,000	53,000	59,000	37,000
Less beginning inventory.....	<u>10,000</u>	<u>11,000</u>	<u>13,000</u>	<u>9,000</u>
Required production.....	<u>36,000</u>	<u>42,000</u>	<u>46,000</u>	<u>28,000</u>

2. During July and August the company is building inventories in anticipation of peak sales in September. Therefore, production exceeds sales during these months. In September and October inventories are being reduced in anticipation of a decrease in sales during the last months of the year. Therefore, production is less than sales during these months to cut back on inventory levels.

3. Direct materials budget:

	<i>July</i>	<i>August</i>	<i>Septem-ber</i>	<i>Third Quarter</i>
Required production (units)....	36,000	42,000	46,000	124,000
Material H300 needed per unit	<u>× 3 cc</u>	<u>× 3 cc</u>	<u>× 3 cc</u>	<u>× 3 cc</u>
Production needs (cc).....	108,000	126,000	138,000	372,000
Add desired ending inventory (cc).....	<u>63,000</u>	<u>69,000</u>	<u>42,000</u>	* <u>42,000</u>
Total material H300 needs.....	171,000	195,000	180,000	414,000
Less beginning inventory (cc).	<u>54,000</u>	<u>63,000</u>	<u>69,000</u>	<u>54,000</u>
Material H300 purchases (cc).	<u>117,000</u>	<u>132,000</u>	<u>111,000</u>	<u>360,000</u>

* 28,000 units (October production) × 3 cc per unit = 84,000 cc;
 84,000 cc × 1/2 = 42,000 cc.

As shown in part (1), production is greatest in September; however, as shown in the raw material purchases budget, purchases of materials are greatest a month earlier—in August. The reason for the large purchases of materials in August is that the materials must be on hand to support the heavy production scheduled for September.

Problem 9-16 (30 minutes)

1.

1

.

1

.

Hruska Corporation
Direct Labor Budget

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Units to be produced.....	12,000	10,000	13,000	14,000	49,000
Direct labor time per unit (hours)...	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>
Total direct labor-hours needed.....	2,400	2,000	2,600	2,800	9,800
Direct labor cost per hour.....	<u>\$12.00</u>	<u>\$12.00</u>	<u>\$12.00</u>	<u>\$12.00</u>	<u>\$12.00</u>
Total direct labor cost.....	<u>\$28,800</u>	<u>\$24,000</u>	<u>\$31,200</u>	<u>\$33,600</u>	<u>\$117,600</u>

2.

1

.

1

.

Hruska Corporation
Manufacturing Overhead Budget

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Budgeted direct labor-hours.....	2,400	2,000	2,600	2,800	9,800
Variable overhead rate.....	<u>\$1.75</u>	<u>\$1.75</u>	<u>\$1.75</u>	<u>\$1.75</u>	<u>\$1.75</u>
Variable manufacturing overhead..	\$ 4,200	\$ 3,500	\$ 4,550	\$ 4,900	\$ 17,150
Fixed manufacturing overhead.....	<u>86,000</u>	<u>86,000</u>	<u>86,000</u>	<u>86,000</u>	<u>344,000</u>

Total manufacturing overhead.....	90,200	89,500	90,550	90,900	361,150
Less depreciation.....	<u>23,000</u>	<u>23,000</u>	<u>23,000</u>	<u>23,000</u>	<u>92,000</u>
Cash disbursements for manufacturing overhead.....	<u>\$67,200</u>	<u>\$66,500</u>	<u>\$67,550</u>	<u>\$67,900</u>	<u>\$269,150</u>

Problem 9-17 (30 minutes)

1. December cash sales.....	\$ 83,000
Collections on account:	
October sales: \$400,000 × 18%.....	72,000
November sales: \$525,000 × 60%.....	315,000
December sales: \$600,000 × 20%.....	<u>120,000</u>
Total cash collections.....	<u>\$590,000</u>
2. Payments to suppliers:	
November purchases (accounts payable)...	\$161,000
December purchases: \$280,000 × 30%.....	<u>84,000</u>
Total cash payments.....	<u>\$245,000</u>

3. Ashton Company
Cash Budget
For the Month of December

Cash balance, beginning.....	\$ 40,000
Add cash receipts: Collections from customers	<u>590,000</u>
Total cash available before current financing....	630,000
Less disbursements:	
Payments to suppliers for inventory.....	\$245,000
Selling and administrative expenses*.....	380,000
New web server.....	76,000
Dividends paid.....	<u>9,000</u>
Total disbursements.....	<u>710,000</u>
Excess (deficiency) of cash available over disbursements.....	<u>(80,000)</u>
Financing:	
Borrowings.....	100,000
Repayments.....	0
Interest.....	<u>0</u>
Total financing.....	<u>100,000</u>
Cash balance, ending.....	<u>\$ 20,000</u>

*\$430,000 – \$50,000 = \$380,000.

Problem 9-18 (30 minutes)

1.

1

Zan Corporation
Direct Materials Budget

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Required production (units).....	5,000	8,000	7,000	6,000	26,000
Raw materials per unit (grams).....	<u>× 8</u>	<u>× 8</u>	<u>× 8</u>	<u>× 8</u>	<u>× 8</u>
Production needs (grams).....	40,000	64,000	56,000	48,000	208,000
Add desired ending inventory (grams).....	<u>16,000</u>	<u>14,000</u>	<u>12,000</u>	<u>8,000</u>	<u>8,000</u>
Total needs (grams).....	56,000	78,000	68,000	56,000	216,000
Less beginning inventory (grams)..<	<u>6,000</u>	<u>16,000</u>	<u>14,000</u>	<u>12,000</u>	<u>6,000</u>
Raw materials to be purchased (grams).....	<u>50,000</u>	<u>62,000</u>	<u>54,000</u>	<u>44,000</u>	<u>210,000</u>
Cost of raw materials to be purchased at \$1.20 per gram.....	<u>\$60,000</u>	<u>\$74,400</u>	<u>\$64,800</u>	<u>\$52,800</u>	<u>\$252,000</u>

Schedule of Expected Cash Disbursements for Materials

Accounts payable, beginning balance.....	\$ 2,880				\$ 2,880
1st Quarter purchases.....	36,000	\$24,000			60,000
2nd Quarter purchases.....		44,640	\$29,760		74,400
3rd Quarter purchases.....			38,880	\$25,920	64,800
4th Quarter purchases.....				<u>31,680</u>	<u>31,680</u>
Total cash disbursements for materials.....	<u>\$38,880</u>	<u>\$68,640</u>	<u>\$68,640</u>	<u>\$57,600</u>	<u>\$233,760</u>

Problem 9-18 (continued)

2.

1

Zan Corporation
Direct Labor Budget

	<i>1st Quarter</i>	<i>2nd Quarter</i>	<i>3rd Quarter</i>	<i>4th Quarter</i>	<i>Year</i>
Required production (units).....	5,000	8,000	7,000	6,000	26,000
Direct labor-hours per unit.....	<u>× 0.20</u>	<u>× 0.20</u>	<u>× 0.20</u>	<u>× 0.20</u>	<u>× 0.20</u>
Total direct labor-hours needed.....	1,000	1,600	1,400	1,200	5,200
Direct labor cost per hour.....	<u>× \$11.50</u>	<u>× \$11.50</u>	<u>× \$11.50</u>	<u>× \$11.50</u>	<u>× \$11.50</u>
Total direct labor cost.....	<u>\$ 11,500</u>	<u>\$ 18,400</u>	<u>\$ 16,100</u>	<u>\$ 13,800</u>	<u>\$ 59,800</u>

Problem 9-19 (60 minutes)

1. Schedule of cash receipts:

Cash sales—May.....	\$ 60,000
Collections on account receivable:	
April 30 balance.....	54,000
May sales (50% × \$140,000).....	<u>70,000</u>
Total cash receipts.....	<u>\$184,000</u>

Schedule of cash payments for purchases:

April 30 accounts payable balance.....	\$ 63,000
May purchases (40% × \$120,000).....	<u>48,000</u>
Total cash payments.....	<u>\$111,000</u>

Minden Company
Cash Budget
For the Month of May

Cash balance, beginning.....	\$ 9,000
Add receipts from customers (above).....	<u>184,000</u>
Total cash available.....	<u>193,000</u>
Less disbursements:	
Purchase of inventory (above).....	111,000
Selling and administrative expenses.....	72,000
Purchases of equipment.....	<u>6,500</u>
Total cash disbursements.....	<u>189,500</u>
Excess of receipts over disbursements.....	<u>3,500</u>
Financing:	
Borrowing—note.....	20,000
Repayments—note.....	(14,500)
Interest.....	<u>(100)</u>
Total financing.....	<u>5,400</u>
Cash balance, ending.....	<u>\$ 8,900</u>

Problem 9-19 (continued)

2.

Minden Company
Budgeted Income Statement
For the Month of May

Sales.....		\$200,000
Cost of goods sold:		
Beginning inventory.....	\$ 30,000	
Add purchases.....	<u>120,000</u>	
Goods available for sale.....	150,000	
Ending inventory.....	<u>40,000</u>	
Cost of goods sold.....		<u>110,000</u>
Gross margin.....		90,000
Selling and administrative expenses		
(\$72,000 + \$2,000).....		<u>74,000</u>
Net operating income.....		16,000
Interest expense.....		<u>100</u>
Net income.....		<u><u>\$ 15,900</u></u>

3.

Minden Company
Budgeted Balance Sheet
May 31

<i>Assets</i>	
Cash.....	\$ 8,900
Accounts receivable (50% × \$140,000).....	70,000
Inventory.....	40,000
Buildings and equipment, net of depreciation	
(\$207,000 + \$6,500 – \$2,000).....	<u>211,500</u>
Total assets.....	<u><u>\$330,400</u></u>
<i>Liabilities and Equity</i>	
Accounts payable (60% × 120,000).....	\$ 72,000
Note payable.....	20,000
Capital stock.....	180,000
Retained earnings (\$42,500 + \$15,900).....	<u>58,400</u>
Total liabilities and equity.....	<u><u>\$330,400</u></u>

Problem 9-20 (45 minutes)

1. a. The reasons that Marge Atkins and Pete Granger use budgetary slack include the following:
 - These employees are hedging against the unexpected (reducing uncertainty/risk).
 - The use of budgetary slack allows employees to exceed expectations and/or show consistent performance. This is particularly important when performance is evaluated on the basis of actual results versus budget.
 - Employees are able to blend personal and organizational goals through the use of budgetary slack as good performance generally leads to higher salaries, promotions, and bonuses.
- b. The use of budgetary slack can adversely affect Atkins and Granger by:
 - limiting the usefulness of the budget to motivate their employees to top performance.
 - affecting their ability to identify trouble spots and take appropriate corrective action.
 - reducing their credibility in the eyes of management.

Also, the use of budgetary slack may affect management decision-making as the budgets will show lower contribution margins (lower sales, higher expenses). Decisions regarding the profitability of product lines, staffing levels, incentives, etc., could have an adverse effect on Atkins' and Granger's departments.

Problem 9-20 (continued)

2. The use of budgetary slack, particularly if it has a detrimental effect on the company, may be unethical. In assessing the situation, the specific standards contained in “Standards of Ethical Conduct for Management Accountants” that should be considered are listed below.

Competence

Clear reports using relevant and reliable information should be prepared.

Confidentiality

The standards of confidentiality do not apply in this situation.

Integrity

- Any activity that subverts the legitimate goals of the company should be avoided.
- Favorable as well as unfavorable information should be communicated.

Objectivity

- Information should be fairly and objectively communicated.
- All relevant information should be disclosed.

(Unofficial CMA Solution)

Problem 9-21 (45 minutes)

1. Schedule of expected cash collections:

	<i>Month</i>			
	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
From accounts receivable.....	\$120,000	\$ 16,000		\$136,000
From April sales:				
30% × \$300,000.....	90,000			90,000
60% × \$300,000.....		180,000		180,000
8% × \$300,000.....			\$ 24,000	24,000
From May sales:				
30% × \$400,000.....		120,000		120,000
60% × \$400,000.....			240,000	240,000
From June sales:				
30% × \$250,000.....			<u>75,000</u>	<u>75,000</u>
Total cash collections.....	<u>\$210,000</u>	<u>\$316,000</u>	<u>\$339,000</u>	<u>\$865,000</u>

Problem 9-21 (continued)

2. Cash budget:

	<i>Month</i>			
	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash balance, beginning.....	\$ 24,000	\$ 22,000	\$ 26,000	\$ 24,000
Add receipts:				
Collections from customers.....	<u>210,000</u>	<u>316,000</u>	<u>339,000</u>	<u>865,000</u>
Total available.....	<u>234,000</u>	<u>338,000</u>	<u>365,000</u>	<u>889,000</u>
Less disbursements:				
Merchandise purchases.....	140,000	210,000	160,000	510,000
Payroll.....	20,000	20,000	18,000	58,000
Lease payments.....	22,000	22,000	22,000	66,000
Advertising.....	60,000	60,000	50,000	170,000
Equipment purchases	<u>—</u>	<u>—</u>	<u>65,000</u>	<u>65,000</u>
Total disbursements.....	<u>242,000</u>	<u>312,000</u>	<u>315,000</u>	<u>869,000</u>
Excess (deficiency) of receipts over disbursements.....	<u>(8,000)</u>	<u>26,000</u>	<u>50,000</u>	<u>20,000</u>
Financing:				
Borrowings.....	30,000	—	—	30,000
Repayments.....	—	—	(30,000)	(30,000)
Interest.....	<u>—</u>	<u>—</u>	<u>(1,200)</u>	<u>(1,200)</u>
Total financing.....	<u>30,000</u>	<u>—</u>	<u>(31,200)</u>	<u>(1,200)</u>
Cash balance, ending...	<u>\$ 22,000</u>	<u>\$ 26,000</u>	<u>\$ 18,800</u>	<u>\$ 18,800</u>

3. If the company needs a minimum cash balance of \$20,000 to start each month, the loan cannot be repaid in full by June 30. Some portion of the loan balance will have to be carried over to July.

Problem 9-22 (30 minutes)

1. The budget at Springfield is an imposed “top-down” budget that fails to consider both the need for realistic data and the human interaction essential to an effective budgeting/control process. The President has not given any basis for his goals, so one cannot know whether they are realistic for the company. True participation of company employees in preparation of the budget is minimal and limited to mechanical gathering and manipulation of data. This suggests there will be little enthusiasm for implementing the budget.

The sales by product line should be based on an accurate sales forecast of the potential market. Therefore, the sales by product line should have been developed first to derive the sales target rather than the reverse.

The initial meeting between the Vice President of Finance, Executive Vice President, Marketing Manager, and Production Manager should have been held earlier. This meeting was held too late in the budget process.

2. Springfield should consider adopting a “bottom-up” budget process. This means that the people responsible for performance under the budget would participate in the decisions by which the budget is established. In addition, this approach requires initial and continuing involvement of sales, financial, and production personnel to define sales and profit goals that are realistic within the constraints under which the company operates. Although time consuming, the approach should produce a more acceptable, honest, and workable goal-control mechanism.

The sales forecast should be developed considering internal sales-forecasts as well as external factors. Costs within departments should be divided into fixed and variable, controllable and noncontrollable, discretionary and nondiscretionary. Flexible budgeting techniques could then allow departments to identify costs that can be modified in the planning process.

Problem 9-22 (continued)

3. The functional areas should not necessarily be expected to cut costs when sales volume falls below budget. The time frame of the budget (one year) is short enough so that many costs are relatively fixed. For costs that are fixed, there is little hope for a reduction as a consequence of short-run changes in volume. However, the functional areas should be expected to cut costs should sales volume fall below target when:
- a. control is exercised over the costs within their function.
 - b. budgeted costs were more than adequate for the originally targeted sales, i.e., slack was present.
 - c. budgeted costs vary to some extent with changes in sales.
 - d. there are discretionary costs that can be delayed or omitted with no serious effect on the department.

(Adapted unofficial CMA Solution)

Problem 9-23 (45 minutes)

1. Schedule of expected cash collections:

	<i>Month</i>			
	<i>July</i>	<i>August</i>	<i>September</i>	<i>Quarter</i>
From accounts receivable:				
May sales				
\$250,000 × 3%.....	\$ 7,500			\$ 7,500
June sales				
\$300,000 × 70%.....	210,000			210,000
\$300,000 × 3%.....		\$ 9,000		9,000
From budgeted sales:				
July sales				
\$400,000 × 25%.....	100,000			100,000
\$400,000 × 70%.....		280,000		280,000
\$400,000 × 3%.....			\$ 12,000	12,000
August sales				
\$600,000 × 25%.....		150,000		150,000
\$600,000 × 70%.....			420,000	420,000
September sales				
\$320,000 × 25%.....			80,000	80,000
Total cash collections.....	<u>\$317,500</u>	<u>\$439,000</u>	<u>\$512,000</u>	<u>\$1,268,500</u>

Problem 9-23 (continued)

2. Cash budget:

	<i>Month</i>			
	<i>July</i>	<i>August</i>	<i>September</i>	<i>Quarter</i>
Cash balance, beginning..	\$ 44,500	\$ 28,000	\$ 23,000	\$ 44,500
Add receipts:				
Collections from customers.....	<u>317,500</u>	<u>439,000</u>	<u>512,000</u>	<u>1,268,500</u>
Total cash available.....	<u>362,000</u>	<u>467,000</u>	<u>535,000</u>	<u>1,313,000</u>
Less disbursements:				
Merchandise purchases	180,000	240,000	350,000	770,000
Salaries and wages.....	45,000	50,000	40,000	135,000
Advertising.....	130,000	145,000	80,000	355,000
Rent payments.....	9,000	9,000	9,000	27,000
Equipment purchases....	<u>10,000</u>	<u>0</u>	<u>0</u>	<u>10,000</u>
Total disbursements.....	<u>374,000</u>	<u>444,000</u>	<u>479,000</u>	<u>1,297,000</u>
Excess (deficiency) of receipts over disbursements.....	<u>(12,000)</u>	<u>23,000</u>	<u>56,000</u>	<u>16,000</u>
Financing:				
Borrowings.....	40,000	0	0	40,000
Repayments.....	0	0	(40,000)	(40,000)
Interest.....	<u>0</u>	<u>0</u>	<u>(1,200)</u>	<u>(1,200)</u>
Total financing.....	<u>40,000</u>	<u>0</u>	<u>(41,200)</u>	<u>(1,200)</u>
Cash balance, ending.....	<u>\$ 28,000</u>	<u>\$ 23,000</u>	<u>\$ 14,800</u>	<u>\$ 14,800</u>

3. If the company needs a \$20,000 minimum cash balance to start each month, then the loan cannot be repaid in full by September 30. If the loan is repaid in full, the cash balance will drop to \$14,800 on September 30, as shown above. Some portion of the loan balance will have to be carried over to October.

Uploaded By Qasim Mughal

<http://world-best-free.blogspot.com/>

Problem 9-24 (60 minutes)

1. Collections on sales:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash sales.....	\$120,000	\$180,000	\$100,000	\$ 400,000
Sales on account:				
February: \$200,000 × 80% × 20%.....	32,000			32,000
March: \$300,000 × 80% × 70%, 20%.....	168,000	48,000		216,000
April: \$600,000 × 80% × 10%, 70%, 20%.....	48,000	336,000	96,000	480,000
May: \$900,000 × 80% × 10%, 70%.....		72,000	504,000	576,000
June: \$500,000 × 80% × 10%.....			40,000	40,000
Total cash collections.....	<u>\$368,000</u>	<u>\$636,000</u>	<u>\$740,000</u>	<u>\$1,744,000</u>

2. a. Merchandise purchases budget:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>July</i>
Budgeted cost of goods sold...	\$420,000	\$630,000	\$350,000	\$280,000
Add desired ending inventory*	<u>126,000</u>	<u>70,000</u>	<u>56,000</u>	
Total needs.....	546,000	700,000	406,000	
Less beginning inventory.....	<u>84,000</u>	<u>126,000</u>	<u>70,000</u>	
Required inventory purchases	<u>\$462,000</u>	<u>\$574,000</u>	<u>\$336,000</u>	

*20% of the next month's budgeted cost of goods sold.

b. Schedule of expected cash disbursements for merchandise purchases:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Accounts payable, March 31.....	\$126,000			\$ 126,000
April purchases.....	231,000	\$231,000		462,000
May purchases.....		287,000	\$287,000	574,000
June purchases.....			<u>168,000</u>	<u>168,000</u>
Total cash disbursements.....	<u>\$357,000</u>	<u>\$518,000</u>	<u>\$455,000</u>	<u>\$1,330,000</u>

Problem 9-24 (continued)

3.

Garden Sales, Inc.
Cash Budget
For the Quarter Ended June 30

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash balance, beginning....	\$ 52,000	\$ 40,000	\$ 40,000	\$ 52,000
Add collections from sales..	<u>368,000</u>	<u>636,000</u>	<u>740,000</u>	<u>1,744,000</u>
Total cash available.....	<u>420,000</u>	<u>676,000</u>	<u>780,000</u>	<u>1,796,000</u>
Less disbursements:				
Purchases for inventory...	357,000	518,000	455,000	1,330,000
Selling expenses.....	79,000	120,000	62,000	261,000
Administrative expenses..	25,000	32,000	21,000	78,000
Land purchases.....	—	16,000	—	16,000
Dividends paid.....	<u>49,000</u>	<u>—</u>	<u>—</u>	<u>49,000</u>
Total disbursements.....	<u>510,000</u>	<u>686,000</u>	<u>538,000</u>	<u>1,734,000</u>
Excess (deficiency) of cash	<u>(90,000)</u>	<u>(10,000)</u>	<u>242,000</u>	<u>62,000</u>
Financing:				
Borrowings.....	130,000	50,000	0	180,000
Repayments.....	0	0	(180,000)	(180,000)
Interest				
(\$130,000 × 1% × 3 +				
\$50,000 × 1% × 2).....	<u>0</u>	<u>0</u>	<u>(4,900)</u>	<u>(4,900)</u>
Total financing.....	<u>130,000</u>	<u>50,000</u>	<u>(184,900)</u>	<u>(4,900)</u>
Cash balance, ending.....	<u>\$ 40,000</u>	<u>\$ 40,000</u>	<u>\$ 57,100</u>	<u>\$ 57,100</u>

Problem 9-25 (120 minutes)

1. Schedule of expected cash collections:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash sales.....	\$36,000 *	\$43,200	\$54,000	\$133,200
Credit sales ¹	<u>20,000</u> *	<u>24,000</u>	<u>28,800</u>	<u>72,800</u>
Total collections.....	<u>\$56,000</u> *	<u>\$67,200</u>	<u>\$82,800</u>	<u>\$206,000</u>

¹40% of the preceding month's sales.

*Given.

2. Merchandise purchases budget:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Budgeted cost of goods sold ¹	\$45,000 *	\$ 54,000 *	\$67,500	\$166,500
Add desired ending inventory ²	<u>43,200</u> *	<u>54,000</u>	<u>28,800</u>	<u>28,800</u>
Total needs.....	88,200 *	108,000	96,300	195,300
Less beginning inventory	<u>36,000</u> *	<u>43,200</u>	<u>54,000</u>	<u>36,000</u>
Required purchases.....	<u>\$52,200</u> *	<u>\$ 64,800</u>	<u>\$42,300</u>	<u>\$159,300</u>

¹For April sales: \$60,000 sales × 75% cost ratio = \$45,000.²At April 30: \$54,000 × 80% = \$43,200.

At June 30: July sales \$48,000 × 75% cost ratio × 80% = \$28,800.

*Given.

Schedule of expected cash disbursements—merchandise purchases

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
March purchases.....	\$21,750 *			\$ 21,750 *
April purchases.....	26,100 *	\$26,100 *		52,200 *
May purchases.....		32,400	\$32,400	64,800
June purchases.....			<u>21,150</u>	<u>21,150</u>
Total disbursements.....	<u>\$47,850</u> *	<u>\$58,500</u>	<u>\$53,550</u>	<u>\$159,900</u>

*Given.

Problem 9-25 (continued)

3. Schedule of expected cash disbursements—selling and administrative expenses

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Commissions.....	\$ 7,200 *	\$ 8,640	\$10,800	\$26,640
Rent.....	2,500 *	2,500	2,500	7,500
Other expenses.....	<u>3,600 *</u>	<u>4,320</u>	<u>5,400</u>	<u>13,320</u>
Total disbursements.....	<u>\$13,300 *</u>	<u>\$15,460</u>	<u>\$18,700</u>	<u>\$47,460</u>

*Given.

4. Cash budget:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash balance, beginning.....	\$ 8,000 *	\$ 4,350	\$ 4,590	\$ 8,000
Add cash collections...	<u>56,000 *</u>	<u>67,200</u>	<u>82,800</u>	<u>206,000</u>
Total cash available.....	<u>64,000 *</u>	<u>71,550</u>	<u>87,390</u>	<u>214,000</u>
Less disbursements:				
For inventory.....	47,850 *	58,500	53,550	159,900
For expenses.....	13,300 *	15,460	18,700	47,460
For equipment.....	<u>1,500 *</u>	<u>0</u>	<u>0</u>	<u>1,500</u>
Total disbursements....	<u>62,650 *</u>	<u>73,960</u>	<u>72,250</u>	<u>208,860</u>
Excess (deficiency) of cash.....	<u>1,350 *</u>	<u>(2,410)</u>	<u>15,140</u>	<u>5,140</u>
Financing:				
Borrowings.....	3,000	7,000	0	10,000
Repayments.....	0	0	(10,000)	(10,000)
Interest (\$3,000 × 1% × 3 + \$7,000 × 1% × 2).....	<u>0</u>	<u>0</u>	<u>(230)</u>	<u>(230)</u>
Total financing.....	<u>3,000</u>	<u>7,000</u>	<u>(10,230)</u>	<u>(230)</u>
Cash balance, ending.	<u>\$ 4,350</u>	<u>\$ 4,590</u>	<u>\$ 4,910</u>	<u>\$ 4,910</u>

* Given.

Problem 9-25 (continued)

5.

Shilow Company Income Statement For the Quarter Ended June 30			
Sales (\$60,000 + \$72,000 + \$90,000).....			\$222,000
Cost of goods sold:			
Beginning inventory (Given).....	\$ 36,000		
Add purchases (Part 2).....	<u>159,300</u>		
Goods available for sale.....	195,300		
Ending inventory (Part 2).....	<u>28,800</u>	<u>166,500</u>	*
Gross margin.....		55,500	
Selling and administrative expenses:			
Commissions (Part 3).....	26,640		
Rent (Part 3).....	7,500		
Depreciation (\$900 × 3).....	2,700		
Other expenses (Part 3).....	<u>13,320</u>	<u>50,160</u>	
Net operating income.....		5,340	
Interest expense (Part 4).....		<u>230</u>	
Net income.....		<u>\$ 5,110</u>	

*A simpler computation would be: $\$222,000 \times 75\% = \$166,500$.

Problem 9-25 (continued)

6.

Shilow Company
Balance Sheet
June 30

Assets

Current assets:	
Cash (Part 4).....	\$ 4,910
Accounts receivable ($\$90,000 \times 40\%$).....	36,000
Inventory (Part 2).....	<u>28,800</u>
Total current assets.....	69,710
Building and equipment—net	
($\$120,000 + \$1,500 - \$2,700$).....	<u>118,800</u>
Total assets.....	<u>\$188,510</u>

Liabilities and Equity

Accounts payable (Part 2: $\$42,300 \times 50\%$)..		\$ 21,150
Stockholders' equity:		
Capital stock (Given).....	\$150,000	
Retained earnings*.....	<u>17,360</u>	<u>167,360</u>
Total liabilities and equity.....		<u>\$188,510</u>

* Retained earnings, beginning.....	\$12,250
Add net income.....	<u>5,110</u>
Retained earnings, ending.....	<u>\$17,360</u>

Problem 9-27 (60 minutes)

1. The sales budget for the third quarter:

	<i>Month</i>			
	<i>July</i>	<i>August</i>	<i>September</i>	<i>Quarter</i>
Budgeted sales in units.....	30,000	70,000	50,000	150,000
Selling price per unit....	<u>× \$12</u>	<u>× \$12</u>	<u>× \$12</u>	<u>× \$12</u>
Budgeted sales.....	<u>\$360,000</u>	<u>\$840,000</u>	<u>\$600,000</u>	<u>\$1,800,000</u>

The schedule of expected cash collections from sales:

Accounts receivable, June 30:				
\$300,000 × 65%.....	\$195,000			\$ 195,000
July sales:				
\$360,000 × 30%, 65%.....	108,000	\$234,000		342,000
August sales:				
\$840,000 × 30%, 65%.....		252,000	\$546,000	798,000
September sales:				
\$600,000 × 30%.....			<u>180,000</u>	<u>180,000</u>
Total cash collections. .	<u>\$303,000</u>	<u>\$486,000</u>	<u>\$726,000</u>	<u>\$1,515,000</u>

2. The production budget for July-October:

	<i>July</i>	<i>August</i>	<i>September</i>	<i>October</i>
Budgeted sales in units.....	30,000	70,000	50,000	20,000
Add desired ending inventory.	<u>10,500</u>	<u>7,500</u>	<u>3,000</u>	<u>1,500</u>
Total needs.....	40,500	77,500	53,000	21,500
Less beginning inventory.....	<u>4,500</u>	<u>10,500</u>	<u>7,500</u>	<u>3,000</u>
Required production.....	<u>36,000</u>	<u>67,000</u>	<u>45,500</u>	<u>18,500</u>

Problem 9-27 (continued)

3. The direct materials budget for the third quarter:

	<i>Month</i>			
	<i>July</i>	<i>August</i>	<i>September</i>	<i>Quarter</i>
Required production (above).....	36,000	67,000	45,500	148,500
Raw material needs per unit (feet).....	<u>× 4</u>	<u>× 4</u>	<u>× 4</u>	<u>× 4</u>
Production needs (feet).....	144,000	268,000	182,000	594,000
Add desired ending inventory (feet).....	<u>134,000</u>	<u>91,000</u>	<u>37,000</u> *	<u>37,000</u> *
Total needs (feet).....	278,000	359,000	219,000	631,000
Less beginning inventory (feet).....	<u>72,000</u>	<u>134,000</u>	<u>91,000</u>	<u>72,000</u>
Raw materials to be purchased (feet).....	<u>206,000</u>	<u>225,000</u>	<u>128,000</u>	<u>559,000</u>
Cost of raw materials to be purchased at \$0.80 per foot.....	<u>\$164,800</u>	<u>\$180,000</u>	<u>\$102,400</u>	<u>\$447,200</u>

*18,500 units (October) × 4 feet per unit = 74,000 feet

74,000 feet × ½ = 37,000 feet

The schedule of expected cash payments:

	<i>July</i>	<i>August</i>	<i>September</i>	<i>Quarter</i>
Accounts payable, June 30.....	\$ 76,000			\$ 76,000
July purchases:				
\$164,800 × 50%, 50%...	82,400	\$ 82,400		164,800
August purchases:				
\$180,000 × 50%, 50%...		90,000	\$ 90,000	180,000
September purchases:				
\$102,400 × 50%.....			<u>51,200</u>	<u>51,200</u>
Total cash payments.....	<u>\$158,400</u>	<u>\$172,400</u>	<u>\$141,200</u>	<u>\$472,000</u>

Problem 9-28 (120 minutes)

1. Schedule of expected cash collections:

	<i>January</i>	<i>February</i>	<i>March</i>	<i>Quarter</i>
Cash sales.....	\$ 80,000 *	\$120,000	\$ 60,000	\$ 260,000
Credit sales.....	<u>224,000</u> *	<u>320,000</u>	<u>480,000</u>	<u>1,024,000</u>
Total cash collections...	<u>\$304,000</u> *	<u>\$440,000</u>	<u>\$540,000</u>	<u>\$1,284,000</u>

*Given.

2. a. Merchandise purchases budget:

	<i>January</i>	<i>February</i>	<i>March</i>	<i>Quarter</i>
Budgeted cost of goods sold ¹	\$240,000 *	\$360,000 *	\$180,000	\$780,000
Add desired ending inventory ²	<u>90,000</u> *	<u>45,000</u>	<u>30,000</u>	<u>30,000</u>
Total needs.....	330,000 *	405,000	210,000	810,000
Less beginning inventory.....	<u>60,000</u> *	<u>90,000</u>	<u>45,000</u>	<u>60,000</u>
Required purchases..	<u>\$270,000</u> *	<u>\$315,000</u>	<u>\$165,000</u>	<u>\$750,000</u>

¹For January sales: \$400,000 × 60% cost ratio = \$240,000.²At January 31: \$360,000 × 25% = \$90,000. At March 31: \$200,000 April sales × 60% cost ratio × 25% = \$30,000.

*Given.

b. Schedule of expected cash disbursements for purchases:

	<i>January</i>	<i>February</i>	<i>March</i>	<i>Quarter</i>
December purchases.....	\$ 93,000 *			\$ 93,000 *
January purchases..	135,000 *	\$135,000 *		270,000 *
February purchases		157,500	\$157,500	315,000
March purchases....			<u>82,500</u>	<u>82,500</u>
Total cash disbursements for purchases.....	<u>\$228,000</u> *	<u>\$292,500</u>	<u>\$240,000</u>	<u>\$760,500</u>

*Given.

Problem 9-28 (continued)

3. Schedule of expected cash disbursements for selling and administrative expenses:

	<i>January</i>	<i>February</i>	<i>March</i>	<i>Quarter</i>
Salaries and wages.....	\$ 27,000 *	\$ 27,000	\$ 27,000	\$ 81,000
Advertising.....	70,000 *	70,000	70,000	210,000
Shipping.....	20,000 *	30,000	15,000	65,000
Other expenses.....	<u>12,000 *</u>	<u>18,000</u>	<u>9,000</u>	<u>39,000</u>
Total cash disbursements for selling and administrative expenses.....	<u>\$129,000 *</u>	<u>\$145,000</u>	<u>\$121,000</u>	<u>\$395,000</u>

*Given.

4. Cash budget:

	<i>January</i>	<i>February</i>	<i>March</i>	<i>Quarter</i>
Cash balance, beginning....	\$ 48,000 *	\$ 30,000	\$ 30,800	\$ 48,000
Add cash collections.....	<u>304,000 *</u>	<u>440,000</u>	<u>540,000</u>	<u>1,284,000</u>
Total cash available.....	<u>352,000 *</u>	<u>470,000</u>	<u>570,800</u>	<u>1,332,000</u>
Less cash disbursements:				
Inventory purchases.....	228,000 *	292,500	240,000	760,500
Selling and administrative expenses.....	129,000 *	145,000	121,000	395,000
Equipment purchases.....	0	1,700	84,500	86,200
Cash dividends.....	<u>45,000 *</u>	<u>0</u>	<u>0</u>	<u>45,000</u>
Total cash disbursements...	<u>402,000 *</u>	<u>439,200</u>	<u>445,500</u>	<u>1,286,700</u>
Excess (deficiency) of cash	<u>(50,000)*</u>	<u>30,800</u>	<u>125,300</u>	<u>45,300</u>
Financing:				
Borrowings.....	80,000	0	0	80,000
Repayments.....	0	0	(80,000)	(80,000)
Interest				
(\$80,000 × 1% × 3).....	<u>0</u>	<u>0</u>	<u>(2,400)</u>	<u>(2,400)</u>
Total financing.....	<u>80,000</u>	<u>0</u>	<u>(82,400)</u>	<u>(2,400)</u>
Cash balance, ending.....	<u>\$ 30,000</u>	<u>\$ 30,800</u>	<u>\$ 42,900</u>	<u>\$ 42,900</u>

* Given.

Problem 9-28 (continued)

5. Income statement:

Hillyard Company
Income Statement
For the Quarter Ended March 31

Sales.....		\$1,300,000
Cost of goods sold:		
Beginning inventory (Given).....	\$ 60,000	
Add purchases (Part 2).....	<u>750,000</u>	
Goods available for sale.....	810,000	
Ending inventory (Part 2).....	<u>30,000</u>	<u>780,000</u> *
Gross margin.....		520,000
Selling and administrative expenses:		
Salaries and wages (Part 3).....	81,000	
Advertising (Part 3).....	210,000	
Shipping (Part 3).....	65,000	
Depreciation (given).....	42,000	
Other expenses (Part 3).....	<u>39,000</u>	<u>437,000</u>
Net operating income.....		83,000
Interest expense (Part 4).....		<u>2,400</u>
Net income.....		<u>\$ 80,600</u>

*A simpler computation would be: $\$1,300,000 \times 60\% = \$780,000$.

Problem 9-28 (continued)

6. Balance sheet:

Hillyard Company
Balance Sheet
March 31

Assets

Current assets:	
Cash (Part 4).....	\$ 42,900
Accounts receivable (80% × \$300,000).....	240,000
Inventory (Part 2).....	<u>30,000</u>
Total current assets.....	312,900
Buildings and equipment, net	
(\$370,000 + \$86,200 – \$42,000).....	<u>414,200</u>
Total assets.....	<u>\$727,100</u>

Liabilities and Equity

Current liabilities:	
Accounts payable (Part 2: 50% × \$165,000)...	\$ 82,500
Stockholders' equity:	
Capital stock.....	\$500,000
Retained earnings*.....	<u>144,600</u>
Total liabilities and equity.....	<u>\$727,100</u>

* Retained earnings, beginning.....	\$109,000
Add net income.....	<u>80,600</u>
Total.....	189,600
Deduct cash dividends.....	<u>45,000</u>
Retained earnings, ending.....	<u>\$144,600</u>

Case 9-29 (45 minutes)

1. The budgetary control system has several important shortcomings that reduce its effectiveness and may cause it to interfere with good performance. Some of the shortcomings are explained below.
 - a. *Lack of Coordinated Goals.* Emory had been led to believe high-quality output is the goal; it now appears low cost is the goal. Employees do not know what the goals are and thus cannot make decisions that further the goals.
 - b. *Influence of Uncontrollable Factors.* Actual performance relative to budget is greatly influenced by uncontrollable factors (i.e., rush orders, lack of prompt maintenance). Thus, the variance reports serve little purpose for performance evaluation or for locating controllable factors to improve performance. As a result, the system does not encourage coordination among departments.
 - c. *The Short-Run Perspectives.* Monthly evaluations and budget tightening on a monthly basis results in a very short-run perspective. This results in inappropriate decisions (i.e., inspect forklift trucks rather than repair inoperative equipment, fail to report supplies usage).
 - d. *System Does Not Motivate.* The budgetary system appears to focus on performance evaluation even though most of the essential factors for that purpose are missing. The focus on evaluation and the weaknesses take away an important benefit of the budgetary system—employee motivation.
2. The improvements in the budgetary control system should correct the deficiencies described above. The system should:
 - a. more clearly define the company's objectives.
 - b. develop an accounting reporting system that better matches controllable factors with supervisor responsibility and authority.
 - c. establish budgets for appropriate time periods that do not change monthly simply as a result of a change in the prior month's performance.

The entire company from top management down should be educated in sound budgetary procedures.

(Unofficial CMA Solution, adapted)

Case 9-30 (120 minutes)**a. Sales budget:**

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Budgeted unit sales....	65,000	100,000	50,000	215,000
Selling price per unit...	<u>× \$10</u>	<u>× \$10</u>	<u>× \$10</u>	<u>× \$10</u>
Total sales.....	<u>\$650,000</u>	<u>\$1,000,000</u>	<u>\$500,000</u>	<u>\$2,150,000</u>

b. Schedule of expected cash collections:

February sales (10%).	\$ 26,000			\$ 26,000
March sales				
(70%, 10%).....	280,000	\$ 40,000		320,000
April sales				
(20%, 70%, 10%)....	130,000	455,000	\$ 65,000	650,000
May sales				
(20%, 70%).....		200,000	700,000	900,000
June sales (20%).....			<u>100,000</u>	<u>100,000</u>
Total cash collections.	<u>\$436,000</u>	<u>\$695,000</u>	<u>\$865,000</u>	<u>\$1,996,000</u>

c. Merchandise purchases budget:

Budgeted unit sales....	65,000	100,000	50,000	215,000
Add desired ending				
inventory (40% of				
the next month's				
unit sales).....	<u>40,000</u>	<u>20,000</u>	<u>12,000</u>	<u>12,000</u>
Total needs.....	105,000	120,000	62,000	227,000
Less beginning				
inventory.....	<u>26,000</u>	<u>40,000</u>	<u>20,000</u>	<u>26,000</u>
Required purchases...	<u>79,000</u>	<u>80,000</u>	<u>42,000</u>	<u>201,000</u>
Cost of purchases at				
\$4 per unit.....	<u>\$316,000</u>	<u>\$320,000</u>	<u>\$168,000</u>	<u>\$ 804,000</u>

d. Budgeted cash disbursements for merchandise purchases:

Accounts payable.....	\$100,000			\$ 100,000
April purchases.....	158,000	\$158,000		316,000
May purchases.....		160,000	\$160,000	320,000
June purchases.....			<u>84,000</u>	<u>84,000</u>
Total cash payments....	<u>\$258,000</u>	<u>\$318,000</u>	<u>\$244,000</u>	<u>\$ 820,000</u>

Case 9-30 (continued)

2.

Earrings Unlimited
Cash Budget
For the Three Months Ending June 30

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash balance.....	\$ 74,000	\$ 50,000	\$ 50,000	\$ 74,000
Add collections from customers.....	<u>436,000</u>	<u>695,000</u>	<u>865,000</u>	<u>1,996,000</u>
Total cash available.....	<u>510,000</u>	<u>745,000</u>	<u>915,000</u>	<u>2,070,000</u>
Less disbursements:				
Merchandise purchases. .	258,000	318,000	244,000	820,000
Advertising.....	200,000	200,000	200,000	600,000
Rent.....	18,000	18,000	18,000	54,000
Salaries.....	106,000	106,000	106,000	318,000
Commissions (4% of sales).....	26,000	40,000	20,000	86,000
Utilities.....	7,000	7,000	7,000	21,000
Equipment purchases.....	0	16,000	40,000	56,000
Dividends paid.....	<u>15,000</u>	<u>0</u>	<u>0</u>	<u>15,000</u>
Total disbursements.....	<u>630,000</u>	<u>705,000</u>	<u>635,000</u>	<u>1,970,000</u>
Excess (deficiency) of receipts over disbursements.....	<u>(120,000)</u>	<u>40,000</u>	<u>280,000</u>	<u>100,000</u>
Financing:				
Borrowings.....	170,000	10,000	0	180,000
Repayments.....	0	0	(180,000)	(180,000)
Interest (\$170,000 × 1% × 3 + \$10,000 × 1% × 2).....	<u>0</u>	<u>0</u>	<u>(5,300)</u>	<u>(5,300)</u>
Total financing.....	<u>170,000</u>	<u>10,000</u>	<u>(185,300)</u>	<u>(5,300)</u>
Cash balance, ending.....	<u>\$ 50,000</u>	<u>\$ 50,000</u>	<u>\$ 94,700</u>	<u>\$ 94,700</u>

Case 9-30 (continued)

3.

Earrings Unlimited
Budgeted Income Statement
For the Three Months Ended June 30

Sales (Part 1 a.).....		\$2,150,000
Variable expenses:		
Cost of goods sold @ \$4 per unit.....	\$860,000	
Commissions @ 4% of sales.....	<u>86,000</u>	<u>946,000</u>
Contribution margin.....		1,204,000
Fixed expenses:		
Advertising (\$200,000 × 3).....	600,000	
Rent (\$18,000 × 3).....	54,000	
Salaries (\$106,000 × 3).....	318,000	
Utilities (\$7,000 × 3).....	21,000	
Insurance (\$3,000 × 3).....	9,000	
Depreciation (\$14,000 × 3).....	<u>42,000</u>	<u>1,044,000</u>
Net operating income.....		160,000
Interest expense (Part 2).....		<u>5,300</u>
Net income.....		<u>\$ 154,700</u>

Case 9-30 (continued)

4.

Earrings Unlimited
Budgeted Balance Sheet
June 30

<i>Assets</i>	
Cash.....	\$ 94,700
Accounts receivable (see below).....	500,000
Inventory (12,000 units @ \$4 per unit).....	48,000
Prepaid insurance (\$21,000 – \$9,000).....	12,000
Property and equipment, net (\$950,000 + \$56,000 – \$42,000).....	<u>964,000</u>
Total assets.....	<u>\$1,618,700</u>

<i>Liabilities and Stockholders' Equity</i>	
Accounts payable, purchases (50% × \$168,000).....	\$ 84,000
Dividends payable.....	15,000
Capital stock.....	800,000
Retained earnings (see below).....	<u>719,700</u>
Total liabilities and stockholders' equity.....	<u>\$1,618,700</u>

Accounts receivable at June 30:

10% × May sales of \$1,000,000.....	\$100,000
80% × June sales of \$500,000.....	<u>400,000</u>
Total.....	<u>\$500,000</u>

Retained earnings at June 30:

Balance, March 31.....	\$580,000
Add net income (part 3).....	<u>154,700</u>
Total.....	734,700
Less dividends declared.....	<u>15,000</u>
Balance, June 30.....	<u>\$719,700</u>

Research and Application 9-31

1. Procter & Gamble (P&G) succeeds first and foremost because of its product leadership customer value proposition. Page 26 of the annual report says that P&G succeeds by winning two “moments of truth.” First, P&G must win the moment of truth “when a consumer stands in front of the shelf and chooses a product from among many competitive offerings.” This moment of truth alludes to a dimension of product leadership called perceived quality, or brand recognition. P&G must also win the second moment of truth “when the consumer uses the product and evaluates how well the product meets his or her expectations.” This moment of truth alludes to the actual functionality of the product. If P&G cannot win these two “moments of truth” all other dimensions of competitiveness are moot.

Students can make defensible arguments in favor of customer intimacy and operational excellence. For example, the Market Development Organization (MDO) operates in over 80 countries in an effort to tailor P&G’s brands to local consumer preferences. However, these customer intimacy efforts are targeted at fairly large customer segments.

Companies that succeed primarily because of customer intimacy tailor their offerings to individual customers, not large customer segments. P&G also cites economies of scale as being important to its success. While this is certainly true, scale does not differentiate P&G from its major competitors. What differentiates P&G from its competitors is the leadership position of its 17 “billion dollar brands.”

2. P&G faces numerous business risks, some of which are described on page 28 and throughout the annual report. Students may mention other risks beyond those specifically mentioned in the annual report. Here are four risks faced by P&G with suggested control activities:
 - Risk: Patents granted to competitors may introduce product innovations that threaten P&G’s product leadership position. Control activity: Create a competitive intelligence department that legally gathers information about the plans and actions of competitors.
 - Risk: One customer, Wal-Mart, accounted for 16% of P&G’s sales in 2005 (see page 60 of the annual report). Control activity: Seek to diversify sources of sales revenue. P&G appears to be doing this because Wal-Mart was responsible for 17% and 18% of P&G’s sales in 2004 and 2003, respectively.

Research and Application 9-31 (continued)

- Risk: P&G's pipeline of product innovations will dissipate, thereby threatening the company's product leadership position. Control activities: Invest generously in research & development and create performance measures that monitor the number of patents generated per dollar of investment.
 - Risk: Globalization efforts may fail to grow sales. Page 7 of the annual report mentions that P&G currently generates only 23% of its sales from countries that comprise 86% of the world's population. Control activities: Continue to invest in the Market Development Organization and ask it to survey customers in target markets to ensure a good fit between P&G products and local consumer tastes.
3. P&G's quarterly sales (in millions) for 2005 were as follows: September 30th, \$13,744; December 31st, \$14,452; March 31st, \$14,287; and June 30th, \$14,258. Federated Department Stores had quarterly sales (in millions) in 2004 of: March 31st, \$3,517; June 30th, \$3,548; September 30th, \$3,491; and December 31st, \$5,074. P&G's quarterly sales trend is relatively smooth, whereas Federated's sales spiked upward in the fourth quarter.
- Federated has strong sales during the year-end holiday season, whereas P&G sells products that are daily essentials—Crest, Bounty, Charmin, Downy, and Folgers are used by consumers 365 days a year. Generally speaking, companies with seasonal customer demand will have greater cash budgeting concerns. These companies need to have enough cash available to buy large amounts of inventory even though the related cash inflows may not be received for months.
4. The "Item 2: Properties" section of P&G's 10-K states that the company operates 33 manufacturing plants in 21 different states in the United States. P&G also operates 91 manufacturing facilities in 42 other countries.
- P&G's three Global Business Units (GBUs) include P&G Beauty, P&G Family Health, and P&G Household Care. P&G Beauty includes five of the company's billion dollar brands—Pantene, Olay, Head & Shoulders, Wella, and Always. P&G Family Health includes six of the company's billion dollar brands—Pampers, Charmin, Bounty, Crest, Actonel, and

Research and Application 9-31 (continued)

lams. P&G Household Care includes the remaining six billion dollar brands—Folgers, Downy, Tide, Pringles, Dawn, and Ariel. Page 25 of the annual report mentions that P&G markets a total of over 300 branded products in more than 160 countries. The company's Market Development Organization operates in 80 countries.

5. Numerous uncertainties discussed on page 28 of the annual report complicate P&G's forecasting process. These include: (1) raw material cost fluctuations, (2) competitor advertising, pricing and promotion decisions, (3) global economic and political conditions, (4) changes in the regulatory environment, and (5) unforeseen difficulties integrating acquisitions such as Wella and Gillette.
6. Differences in budgeting practices could definitely create cultural differences in terms of accountability and internal communication. For example, if one company uses inflexible and non-negotiable budget targets to blame and punish its employees it would create a counter-productive culture of accountability. This would stand in stark contrast to a company that uses budgets to plan, coordinate, and improve its operations, rather than to assign blame.

Furthermore, a "top-down" approach to budgeting would create a different cultural environment in terms of internal communication than a "bottom-up" participative approach to budgeting. The "top-down" approach would create a sub-optimal environment of one-way communication where the knowledge of those closest to the customer is disregarded. The "bottom-up" approach would empower subordinates to improve the quality of the budget by sharing their knowledge while at the same time recognizing the need for strategic oversight from senior managers.

Uploaded By Qasim Mughal
<http://world-best-free.blogspot.com/>