



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

Accounting for Managers

Prepared by Dr. Sara Ahmed

MGM 341

Lecture 9



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Chapter 9: The Master Budget

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Chapter
09

Learning objectives

- Describe how and why managers use budgets
- Prepare the operating budgets
- Prepare the financial budgets

Understand why
organizations budget and
the processes they use to
create budgets.

The Basic Framework of Budgeting

A **budget** is a detailed quantitative plan for acquiring and using financial and other resources over a specified forthcoming time period.

1. The act of preparing a budget is called **budgeting**.
2. The use of budgets to control an organization's activities is known as **budgetary control**.

Difference Between Planning and Control

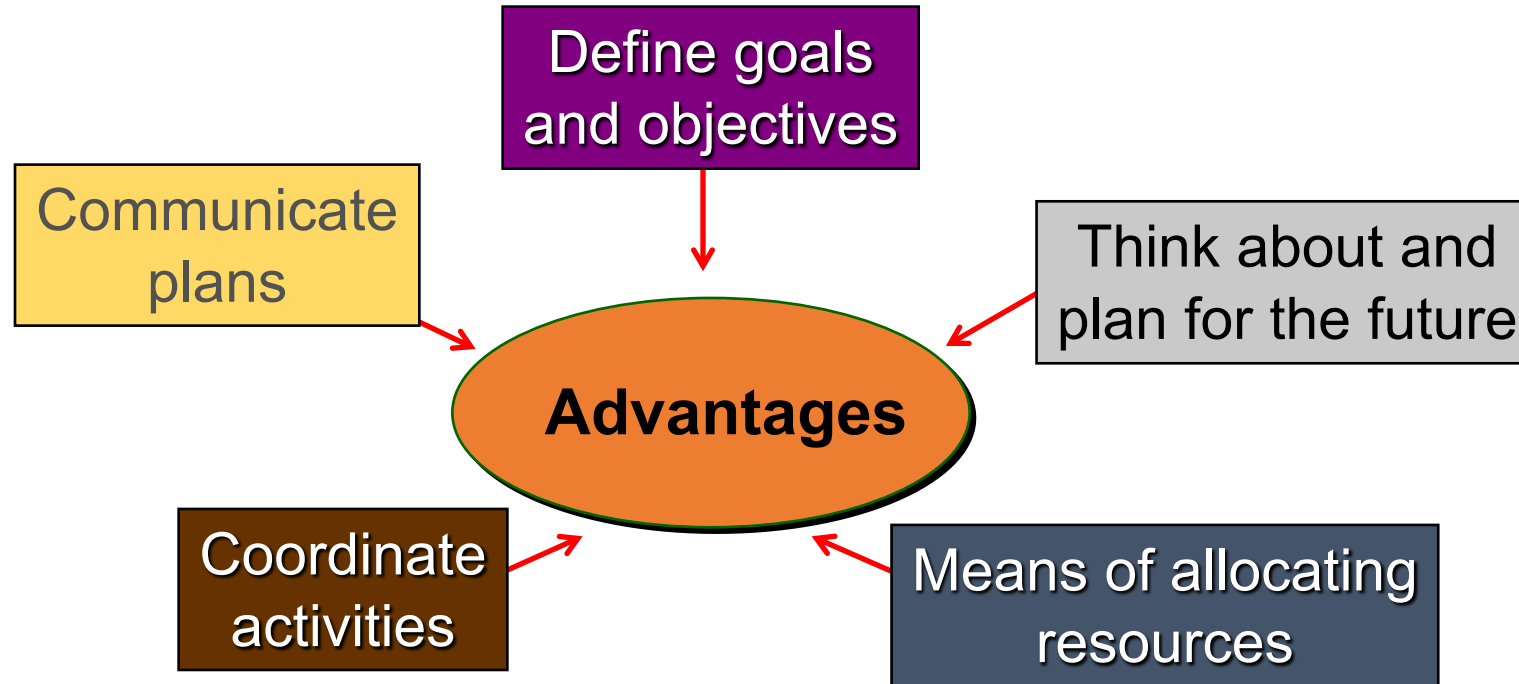
Planning –

involves developing objectives and preparing various budgets to achieve those objectives.

Control –

involves the steps taken by management to increase the likelihood that the objectives set down while planning are attained and that all parts of the organization are working together toward that goal.

Advantages of Budgeting



Responsibility Accounting

Managers should be held responsible for those items - and *only* those items - that they can actually control to a significant extent. **Responsibility accounting** enables organizations to *react quickly* to deviations from their plans and to *learn* from feedback.

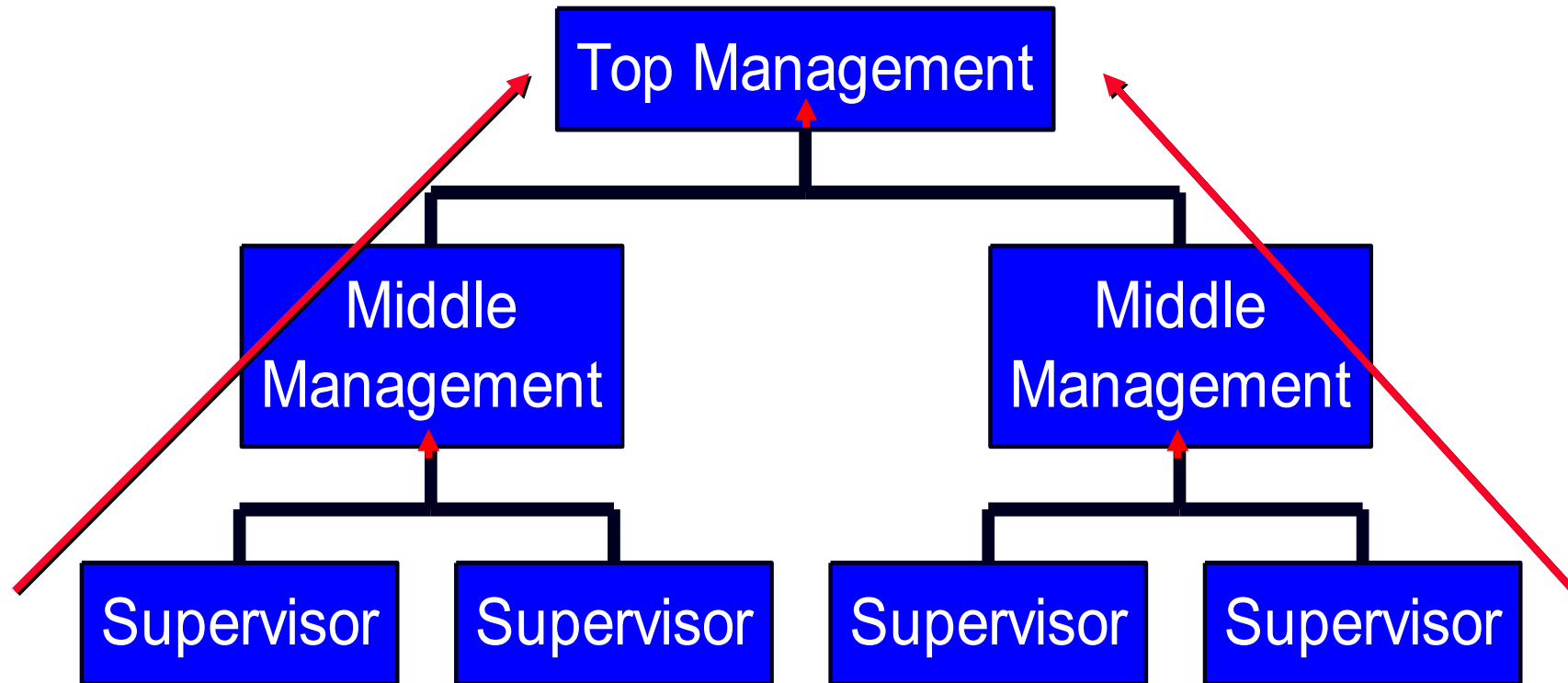
Choosing the Budget Period

Operating Budget



Operating budgets ordinarily cover a one-year period corresponding to a company's fiscal year. Many companies divide their annual budget into four quarters.

A continuous budget is a 12-month budget that rolls forward one month (or quarter) as the current month (or quarter) is completed.



A **self-imposed** budget or **participative budget** is a budget that is prepared with the full cooperation and participation of managers at all levels.

Advantages of Self-Imposed Budgets

1. Individuals at all levels of the organization are viewed as **members of the team** whose judgments are valued by top management.
2. Budget estimates prepared by front-line managers are often **more accurate** than estimates prepared by top managers.
3. **Motivation is generally higher** when individuals participate in setting their own goals than when the goals are imposed from above.
4. A manager who is not able to meet a budget imposed from above can claim that it was **unrealistic**. Self-imposed budgets eliminate this excuse.

Self-Imposed Budgets – Management Review

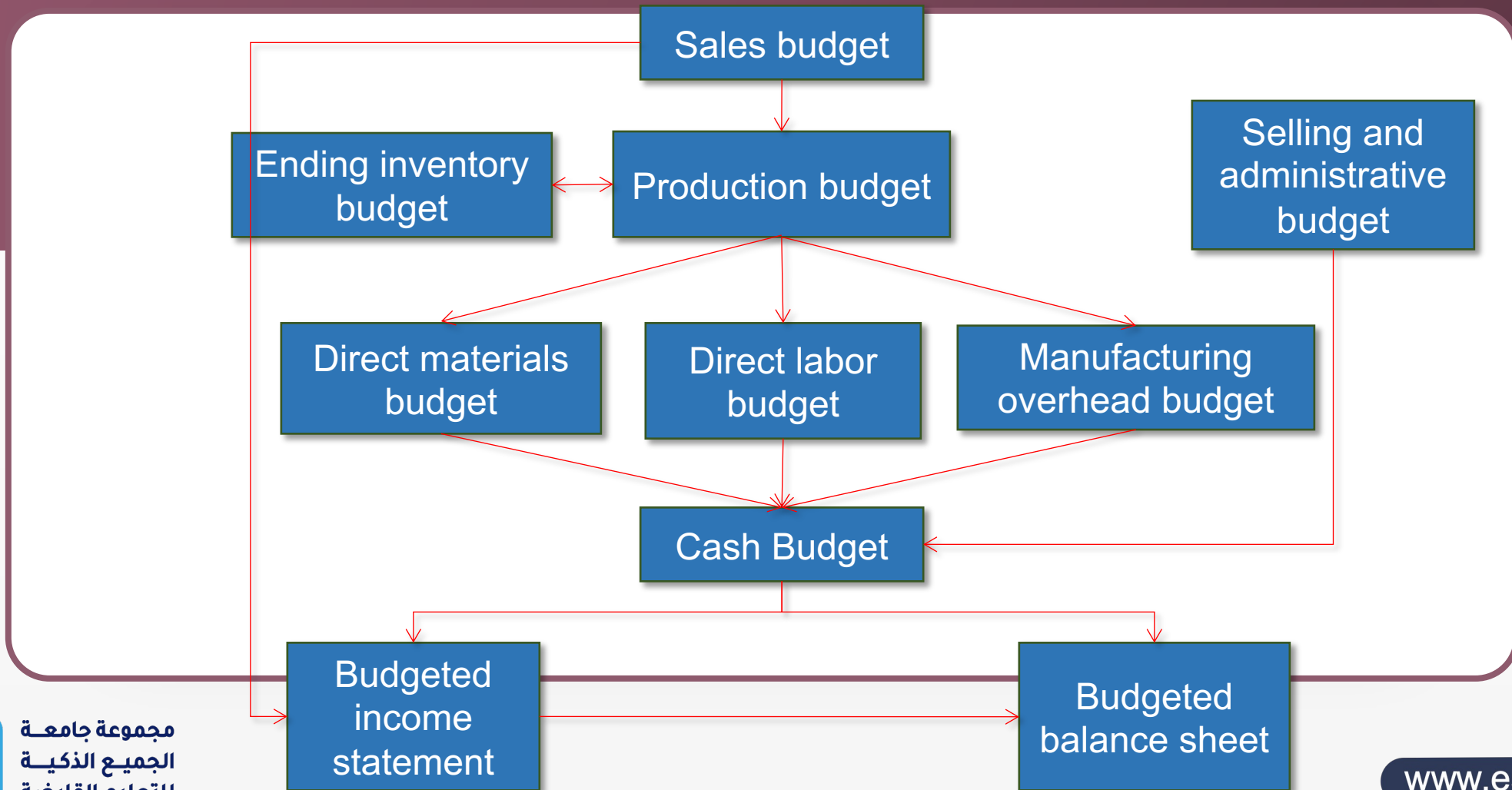
Self-imposed budgets should be reviewed by higher levels of management to prevent “budgetary slack.”

Most companies issue broad guidelines in terms of overall profits or sales. Lower level managers are directed to prepare budgets that meet those targets.

The success of a budget program depends on three important factors:

1. Top management must be **enthusiastic and committed** to the budget process.
2. Top management must not use the budget to **pressure** employees or **blame** them when something goes wrong.
3. **Highly achievable budget targets** are usually preferred when managers are rewarded based on meeting budget targets.

The Master Budget – An Overview



Seeing the Big Picture – Part 1

To help you see the “**big picture**” keep in mind that the 10 schedules in the master budget are designed to answer the 10 questions shown on the next screen.

Seeing the Big Picture

1. How much sales revenue will we earn?
2. How much cash will we collect from customers?
3. How much raw material will we need to purchase?
4. How much manufacturing costs will we incur?
5. How much cash will we pay to our suppliers and our direct laborers, and how much cash will we pay for manufacturing overhead resources?
6. What is the total cost that will be transferred from finished goods inventory to cost of good sold?
7. How much selling and administrative expense will we incur and how much cash will be pay related to those expenses?
8. How much money will we borrow from or repay to lenders – including interest?
9. How much operating income will we earn?
10. What will our balance sheet look like at the end of the budget period?

The Master Budget: Based on Estimates and Assumptions

A master budget is based on various estimates and assumptions. For example, the sales budget requires three **estimates/assumptions** as follows:

1. What are the budgeted unit sales?
2. What is the budgeted selling price per unit?
3. What percentage of accounts receivable will be collected in the current and subsequent periods.

Prepare a sales budget,
including a schedule of
expected cash collections.

Budgeting Example

- ① Royal Company is preparing budgets for the quarter ending June 30th.
- ② Budgeted sales for the next five months are:

April	20,000 units
May	50,000 units
June	30,000 units
July	25,000 units
August	15,000 units
- ③ The selling price is \$10 per unit.

The Sales Budget

The individual months of April, May, and June are summed to obtain the total budgeted sales in units and dollars for the quarter ended June 30th

	April	May	June	Quarter
Budgeted sales in units	20,000	50,000	30,000	100,000
Selling price per unit	\$ <u>10</u>	\$ <u>10</u>	\$ <u>10</u>	\$ <u>10</u>
Total budgeted sales	\$ <u>200,000</u>	\$ <u>500,000</u>	\$ <u>300,000</u>	\$ <u>1,000,000</u>

Expected Cash Collections

- All sales are on account.
- Royal's collection pattern is:
 - 70% collected in the month of sale,
 - 30% collected in the month following sale,
- In April, the March 31st accounts receivable balance of \$30,000 will be collected in full.

Expected Cash Collections Calculations for April

	April	May	June	Quarter
Accounts Receivable 3/31	\$ 30,000			\$ 30,000

Accounts Receivable 6/30 = 30% x \$300,000 = \$90,000

Expected Cash Collections – Calculations for May

	April	May	June	Quarter
Accounts Receivable 3/31	\$ 30,000			\$ 30,000
April Sales				
70% × \$200,000	140,000			140,000
30% × \$200,000		60,000		60,000

From the Sales Budget for April: Accounts Receivable
6/30 = 30% × \$300,000 = \$90,000

Expected Cash Collections – Calculations for June

	April	May	June	Quarter
Accounts Receivable 3/31	\$ 30,000			\$ 30,000
April Sales				
70% × \$200,000	140,000			140,000
30% × \$200,000		60,000		60,000
May Sales				
70% × \$500,000		350,000		350,000
30% × \$500,000			150,000	150,000
June Sales				
70% × \$300,000			<u>210,000</u>	<u>210,000</u>
	<u>\$ 170,000</u>	<u>\$ 410,000</u>	<u>\$ 360,000</u>	<u>\$ 940,000</u>

From the Sales Budget for May: Accounts Receivable 6/30 =
30% × 300,000 = \$90,000

Concept Check 1

What will be the total cash collections for the quarter?

- a. \$700,000
- b. \$220,000
- c. \$190,000
- d. \$940,000

Concept Check 1

What will be the total cash collections for the quarter?

- a. \$700,000
- b. \$220,000
- c. \$190,000
- d. \$940,000

Prepare a production
budget.

The Production Budget

**Sales
Budget
and
Expected
Cash
Collections**

Completed



**Production
Budget**

The production budget must be adequate to meet budgeted sales and to provide for the desired ending inventory.

The Production Budget - Details

The management at Royal Company wants ending inventory to be equal to **20%** of the following month's budgeted sales in units.

On March 31st, 4,000 units were on hand.

Let's prepare the production budget.

If Royal was a merchandising company it would prepare a **merchandise purchase budget** instead of a production budget.

The Production Budget – Budgeted Sales

	April	May	June	Quarter
Budgeted Sales	20,000	50,000	30,000	100,000
Add: Desired ending inventory				
Total needs				
Less Beginning inventory				
Required production				

The Production Budget – Calculations for April

	April	May	June	Quarter
Budgeted Sales	20,000	50,000	30,000	100,000
Add: Desired ending inventory	<u>10,000</u>			
Total needs	30,000			
Less Beginning inventory	<u>4,000</u>			
Required production	<u>26,000</u>			

March 31
ending inventory

Budgeted May sales 50,000
Desired ending inventory % 20%
Desired ending inventory 10,000

Concept Check 2

What is the required production for May?

- a. 56,000 units
- b. 46,000 units
- c. 62,000 units
- d. 52,000 units

Concept Check 2a

What is the required production for May?

- a. 56,000 units
- b. 46,000 units
- c. 62,000 units
- d. 52,000 units

The Production Budget – Calculations for May

	April	May	June	Quarter
Budgeted Sales	20,000	50,000	30,000	100,000
Add: Desired ending inventory	<u>10,000</u>	<u>6,000</u>		
Total needs	30,000	56,000		
Less Beginning inventory	<u>4,000</u>	<u>10,000</u>		
Required production	<u>26,000</u>	<u>46,000</u>		

The Production Budget – Calculations for June

	April	May	June	Quarter
Budgeted Sales	20,000	50,000	30,000	100,000
Add: Desired ending inventory	<u>10,000</u>	<u>6,000</u>	<u>5,000</u>	<u>5,000</u>
Total needs	30,000	56,000	35,000	105,000
Less Beginning inventory	<u>4,000</u>	<u>10,000</u>	<u>6,000</u>	<u>4,000</u>
Required production	<u>26,000</u>	<u>46,000</u>	<u>29,000</u>	<u>101,000</u>

Add: Desired ending inventory:
July sales of 25,000 units $\times$ 20% = 5,000

Prepare a cash budget.

Format of the Cash Budget

The cash budget is divided into four sections:

1. **Cash receipts** section lists all cash inflows excluding cash received from financing;
2. **Cash disbursements** section consists of all cash payments excluding repayments of principal and interest;
3. Cash excess or deficiency section determines if the company will **need to borrow money** or if it will be able to repay funds previously borrowed; and
4. **Financing section** details the borrowings and repayments projected to take place during the budget period.

Additional Cash Budget Information

Assume the following information for Royal:

- Maintains a 16% open line of credit for \$75,000.
- Maintains a minimum cash balance of \$30,000.
- Borrows on the first day of the month and repays loans on the last day of the month.
- Pays a cash dividend of \$49,000 in April.
- Purchases \$143,700 of equipment in May and \$48,300 in June (both purchases paid in cash).
- Has an April 1 cash balance of \$40,000.

The Cash Budget – Total Cash Available

	April	May	June	Quarter
Beginning cash balance	\$ 40,000			
Add: Cash collections	<u>170,000</u>			
Total cash available	\$ <u>210,000</u>			
Less: Cash disbursements				
Materials				
Direct labor				
Manufacturing overhead				
Selling and administrative				
Equipment purchase				
Dividend				
Total disbursements				
Excess (deficiency)				
Financing:				
Borrowing				
Repayment				
Interest				
Total financing				
Ending cash balance				

Schedule of Expected
Cash Collections

The Cash Budget – Computations for April

	April	May	June	Quarter
Beginning cash balance	\$ 40,000			
Add: Cash collections	<u>170,000</u>			
Total cash available	<u>\$ 210,000</u>			
Less: Cash disbursements				
Materials	40,000			
Direct labor	13,000			
Manufacturing overhead	56,000			
Selling and administrative	70,000			
Equipment purchase	-			
Dividend	<u>49,000</u>			
Total disbursements	<u>228,000</u>			
Excess (deficiency)	(18,000)			
Financing:				
Borrowing				
Repayment				
Interest				
Total financing				
Ending cash balance				

**Schedule of Expected
Cash Disbursements**

**Manufacturing
Overhead Budget**

**Selling and Administrative
Expense Budget**

The Cash Budget – April Deficiency

	April	May	June	Quarter
Beginning cash balance	\$ 40,000			
Add: Cash collections	<u>170,000</u>			
Total cash available	\$ <u>210,000</u>			
Less: Cash disbursements				
Materials	40,000			
Direct labor	13,000			
Manufacturing overhead	56,000			
Selling and administrative	70,000			
Equipment purchase	-			
Dividend	<u>49,000</u>			
Total disbursements	<u>228,000</u>			
Excess (deficiency)	(18,000)			
Financing:				
Borrowing				
Repayment				
Interest				
Total financing				
Ending cash balance				

Because Royal maintains a cash balance of \$30,000, the company must borrow \$48,000 on its line-of-credit.

The Cash Budget – April Ending Cash

	April	May	June	Quarter
Beginning cash balance	\$ 40,000			
Add: Cash collections	<u>170,000</u>			
Total cash available	<u>\$ 210,000</u>			
Less: Cash disbursements				
Materials	40,000			
Direct labor	13,000			
Manufacturing overhead	56,000			
Selling and administrative	70,000			
Equipment purchase	-			
Dividend	<u>49,000</u>			
Total disbursements	<u>228,000</u>			
Excess (deficiency)	(18,000)			
Financing:				
Borrowing	48,000			
Repayment	-			
Interest	-			
Total financing	<u>48,000</u>			
Ending cash balance	<u>\$ 30,000</u>			

Because Royal maintains a cash balance of \$30,000, the company must borrow \$48,000 on its line-of-credit.

Ending cash balance for April is the beginning May balance.

Concept Check

What is the excess (deficiency) of cash available over disbursements for June?

- a. \$ 95,000
- b. \$(21,000)
- c. \$ 175,000
- d. \$ 130,500

What is the excess (deficiency) of cash available over disbursements for June?

- a. \$ 95,000
- b. \$(21,000)
- c. \$ 175,000
- d. \$ 130,500

Chapter 09

The Cash Budget – Final Computations

	April	May	June	Quarter
Beginning cash balance	\$ 40,000	\$ 30,000	\$ 40,000	\$ 40,000
Add: Cash collections	<u>170,000</u>	<u>410,000</u>	<u>360,000</u>	<u>940,000</u>
Total cash available	<u>\$ 210,000</u>	<u>\$ 440,000</u>	<u>\$ 400,000</u>	<u>\$ 980,000</u>
Less: Cash disbursements				
Materials	40,000	72,300	72,700	185,000
Direct labor	13,000	23,000	14,500	50,500
		76,000	59,000	191,000
		85,000	75,000	230,000
		143,700	48,300	192,000
		=	=	<u>49,000</u>
Total disbursements	<u>228,000</u>	<u>400,000</u>	<u>269,500</u>	<u>897,500</u>
Excess (deficiency)	(18,000)	40,000	130,500	82,500
Financing:				
Borrowing	48,000	-		48,000
Repayment	-	-	(48,000)	(48,000)
Interest	=	=	(1,920)	(1,920)
Total financing	<u>48,000</u>	=	<u>(49,920)</u>	<u>(1,920)</u>
Ending cash balance	<u>\$ 30,000</u>	<u>\$ 40,000</u>	<u>\$ 80,580</u>	<u>\$ 80,580</u>

$\$48,000 \times 16\% \times 3/12 = \$1,920$
(Borrowings on April 1 and
repayment on June 30)

The Cash Budget – Borrowings

$$\begin{aligned} & \$48,000 \times 16\% \times 3/12 = \$1,920 \\ & \text{(Borrowings on April 1 and} \\ & \text{repayment on June 30)} \end{aligned}$$



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Thank You

