

Managerial Accounting and Cost Concepts

Chapter 2

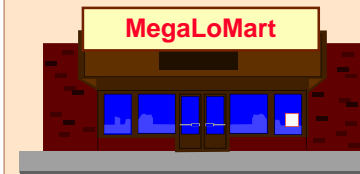
AC202 Managerial Accounting

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Comparing Merchandising and Manufacturing Companies

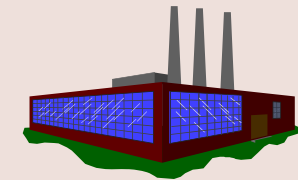
Merchandisers . . .

- Buy finished goods.
- Sell finished goods.



Manufacturers . . .

- Buy raw materials.
- Produce and sell finished goods.



Balance Sheet

Merchandiser

Current assets

- ◆ Cash
- ◆ Receivables
- ◆ Merchandise Inventory

Manufacturer

Current Assets

- ◆ Cash
- ◆ Receivables
- ◆ Inventories
 - Raw Materials
 - Work in Process
 - Finished Goods

Balance Sheet

Merchandiser

Current assets

- ◆ Cash
- ◆ Receivables
- ◆ Merchandise Inventory
 - Partially complete products—some material, labor, or overhead has been added.

Manufacturer

Current Assets

- Materials waiting to be processed.
- ◆ Inventories
 - Raw Materials
 - Work in Process
 - Finished Goods
- Completed products awaiting sale.

The Income Statement

Cost of goods sold for manufacturers differs only slightly from cost of goods sold for merchandisers.

Merchandising Company	
Cost of goods sold:	
Beg. merchandise inventory	\$ 14,200
+ Purchases	<u>234,150</u>
Goods available for sale	\$ 248,350
- Ending merchandise inventory	<u>(12,100)</u>
= Cost of goods sold	<u>\$ 236,250</u>

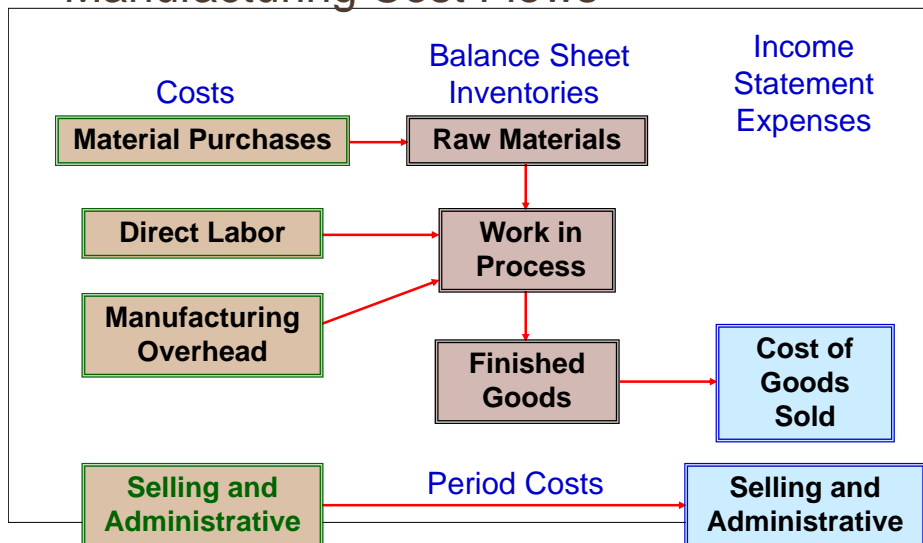
Manufacturing Company	
Cost of goods sold:	
Beg. finished goods inv.	\$ 14,200
+ Cost of goods manufactured	<u>234,150</u>
Goods available for sale	\$ 248,350
- Ending finished goods inventory	<u>(12,100)</u>
= Cost of goods sold	<u>\$ 236,250</u>

Basic Equation for Inventory Accounts

$$\text{Beginning balance} + \text{Additions to inventory} = \text{Ending balance} + \text{Withdrawals from inventory}$$



Manufacturing Cost Flows



Schedule of Cost of Goods Manufactured

Calculates the cost of raw material, direct labor, and manufacturing overhead used in production.

Calculates the manufacturing costs associated with goods that were finished during the period.



Product Cost Flows

Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory		
+ Raw materials purchased	Direct materials	
= Raw materials available for use in production		
- Ending raw materials inventory		
= Raw materials used in production		

As items are removed from raw materials inventory and placed into the production process, they are called direct materials.

Product Cost Flows

Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory	Direct materials	Conversion costs are costs incurred to convert the direct material into a finished product.
+ Raw materials purchased	+ Direct labor	
= Raw materials available for use in production	+ Mfg. overhead	
- Ending raw materials inventory	= Total manufacturing costs	
= Raw materials used in production		

Product Cost Flows

Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory	Direct materials	Beginning work in process inventory
+ Raw materials purchased	+ Direct labor	+ Total manufacturing costs
= Raw materials available for use in production	+ Mfg. overhead	= Total work in process for the period
- Ending raw materials inventory	= Total manufacturing costs	
= Raw materials used in production		

All manufacturing costs incurred during the period are added to the beginning balance of work in process.

Product Cost Flows

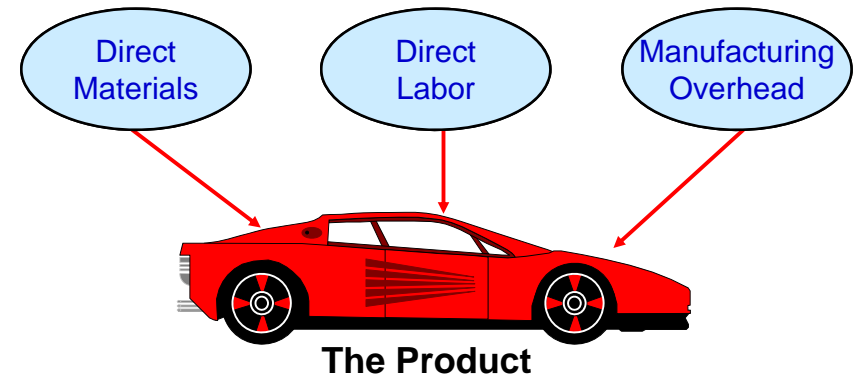
Raw Materials	Manufacturing Costs	Work In Process
Beginning raw materials inventory	Direct materials	Beginning work in process inventory
+ Raw materials purchased	+ Direct labor	+ Total manufacturing costs
= Raw materials available for use in production	+ Mfg. overhead	= Total work in process for the period
- Ending raw materials inventory	= Total manufacturing costs	- Ending work in process inventory
		= Cost of goods manufactured

Costs associated with the goods that are completed during the period are transferred to finished goods inventory.

Product Cost Flows

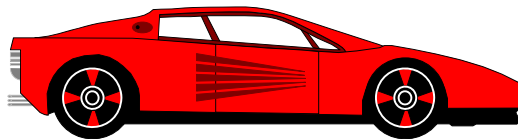
<u>Work In Process</u>	<u>Finished Goods</u>
Beginning work in process inventory	Beginning finished goods inventory
+ Manufacturing costs for the period	+ Cost of goods manufactured
= Total work in process for the period	= Cost of goods available for sale
- Ending work in process inventory	- Ending finished goods inventory
= Cost of goods manufactured	= Cost of goods sold

Classifications of Manufacturing Costs



Direct Materials

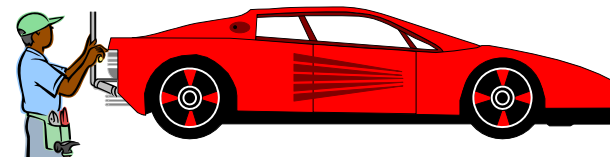
Raw materials that become an integral part of the product and that can be conveniently traced directly to it.



Example: A radio installed in an automobile

Direct Labor

Those labor costs that can be easily traced to individual units of product.



Example: Wages paid to automobile assembly workers

Manufacturing Overhead

Manufacturing costs that **cannot** be easily traced directly to specific units produced.

Examples: Indirect materials and indirect labor

Materials used to support the production process.
Examples: lubricants and cleaning supplies used in the automobile assembly plant.

Wages paid to employees who are not directly involved in production work.
Examples: maintenance workers, janitors, and security guards.

Nonmanufacturing Costs

Selling Costs

Costs necessary to secure the order and deliver the product.

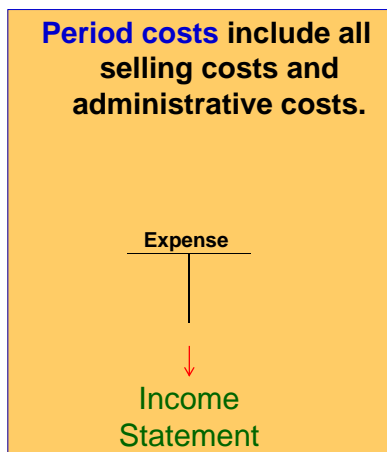
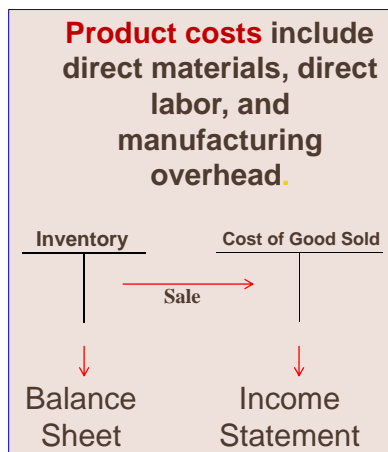


Administrative Costs

All executive, organizational, and clerical costs.



Product Costs Versus Period Costs



Assigning Costs to Cost Objects

Direct costs

- Costs that can be easily and conveniently traced to a unit of product or other cost object.
- Examples: direct material and direct labor

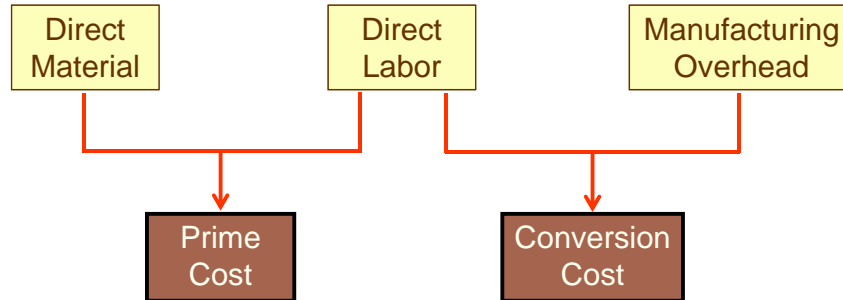
Indirect costs

- Costs that cannot be easily and conveniently traced to a unit of product or other cost object.
- Example: manufacturing overhead



Classifications of Costs

Manufacturing costs are often classified as follows:



Cost Classifications for Predicting Cost Behavior

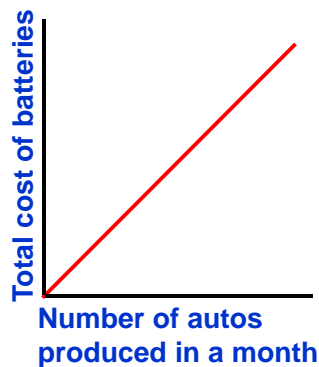


How a cost will react to changes in the level of activity within the relevant range.

- Total **variable costs** change when activity changes.
- Total **fixed costs** remain unchanged when activity changes.

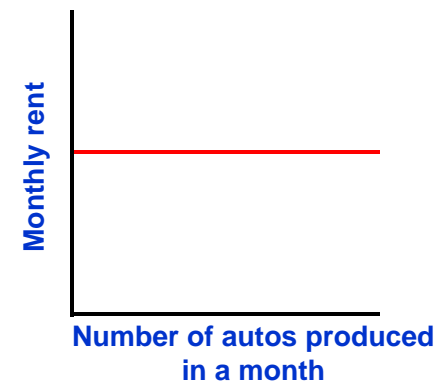
Total Variable Cost

The **total cost of batteries** is based on the number of autos produced in a month



Total Fixed Cost

The **monthly rent** for an auto factory is fixed regardless of the number of autos produced



Cost Classifications for Predicting Cost Behavior

Behavior of Cost (within the relevant range)		
Cost	In Total	Per Unit
Variable	Total variable cost changes as activity level changes.	Variable cost per unit remains the same over wide ranges of activity.
Fixed	Total fixed cost remains the same even when the activity level changes.	Average fixed cost per unit goes down as activity level goes up.

Opportunity Cost

The potential benefit that is given up when one alternative is selected over another.

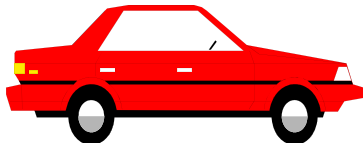
Example: If you were not attending college, you could be earning \$15,000 per year. Your opportunity cost of attending college for one year is \$15,000.



Sunk Costs

Sunk costs have already been incurred and cannot be changed now or in the future. These costs should be ignored when making decisions.

Example: You bought an automobile that cost \$10,000 two years ago. The \$10,000 cost is sunk because whether you drive it, park it, trade it, or sell it, you cannot change the \$10,000 cost.



Summary of the Types of Cost Classifications

Financial Reporting

Predicting Cost Behavior

Assigning Costs to Cost Objects

Making Business Decisions