

# CHAPTER 9

## Inventory Costing and Capacity Analysis

# INVENTORY COSTING CHOICES: OVERVIEW

- ◉ Variable costing—a method of inventory costing in which all variable manufacturing costs (direct and indirect) are included as inventoriable costs. (Also known as direct costing) - **Internal reporting to management.**
- ◉ Absorption costing—a method of inventory costing in which all variable and fixed manufacturing costs are included as inventoriable costs. You can say that inventory “absorbs” all manufacturing costs. **Required for external financial reporting.**
- ◉ Throughput costing—only direct materials are capitalized; all other costs are expensed.


# INVENTORY COSTING: DIFFERENCES IN INCOME

- ◉ Operating income will differ between absorption and variable costing.
- ◉ The amount of the difference represents the amount of fixed manufacturing costs capitalized as inventory under absorption costing and expensed as a period cost under variable costing.
- ◉ If inventory levels change, operating income will differ between the two methods because of the difference in accounting for fixed manufacturing costs.

# EXAMPLE

	2017	2018
Units produced	8,000 units	8,000 units
Beginning inventory	0	2,000 units
Units sold	6,000 units	10,000 units
Ending inventory	2,000 units	0

## ACTUAL PRICE AND COST DATA FOR 2017 & 2018



	A	B
10	Selling price	<u>\$ 1,000</u>
11	Variable manufacturing cost per unit:	
12	Direct materials cost per unit	\$ 110
13	Direct manufacturing labor cost per unit	40
14	Manufacturing overhead cost per unit	50
15	Total variable manufacturing cost per unit	<u>\$ 200</u>
16	Variable marketing cost per unit sold	\$ 185
17	Fixed manufacturing costs (all indirect)	\$1,080,000
18	Fixed marketing costs (all indirect)	\$1,380,000

**Based on the preceding information, costs per unit under the two inventory costing methods are as follows:**

	Variable Costing	Absorption Costing
V.C per unit produced		
DM	\$110	\$110
DL	40	40
Manufacturing OH	50	50
Fixed cost per unit produced	-	135*
<b>Total inventoriable cost per unit produced</b>	<b>\$200</b>	<b>\$335</b>

\*(1080,000/8,000)

## Income Statements under A.C and V.C for 2017

	<b>2017</b>
	<b>APSORPTION COSTING</b>
Sales	\$6,000,000
less: C.G.S	<u>2,010,000</u>
Gross profit	\$3,990,000
Less: Variable marketing costs	1,110,000
Fixed manufacturing costs	<u>1,380,000</u>
Operating income	\$1,500,000
	<b>VARIABLE COSTING</b>
Sales	\$6,000,000
less: Variable C.G.S	1,200,000
Variable marketing costs	<u>1,110,000</u>
Contribution margin	\$3,690,000
less: Fixed manufacturing costs	1,080,000
Fixed marketing costs	<u>1,380,000</u>
Operating income	\$1,230,000

## Income Statements under A.C and V.C for 2018

	<b>2018</b>
	<b>APSORPTION COSTING</b>
Sales	\$10,000,000
less: C.G.S	<u>3,350,000</u>
Gross profit	\$6,650,000
less: Variable marketing costs	1,850,000
Fixed marketing costs	<u>1,380,000</u>
<b>Operating income</b>	<b>\$3,420,000</b>
	<b>VARIABLE COSTING</b>
Sales	\$10,000,000
less: Variable C.G.S	2,000,000
Variable marketing costs	<u>1,850,000</u>
Contribution margin	\$6,150,000
less: Fixed manufacturing costs	1,080,000
Fixed marketing costs	<u>1,380,000</u>
<b>Operating income</b>	<b>\$3,690,000</b>



# COMPARING VARIABLE COSTING AND ABSORPTION COSTING

	Variable Costing	Absorption Costing
Are fixed OH inventoried?	No	Yes
How do changes in unit inventory levels affect operating income?		
Production = Sales	Equal	Equal
Production higher than Sales	Lower	Higher
Production lower than Sales	Higher	Lower

# Thank You