Notes

Chapter 9

Accounting
351

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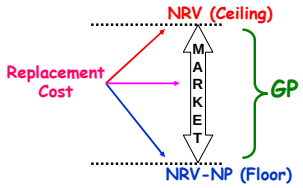
California State University, Northridge

Lower of Cost or Market
ARB No. 43 (ASC 330-10-35-1)

Net Realizable Value (ceiling) = estimated selling price less cost of completion and disposal (shouldn't value inventory for more than a company can receive for it).

Replacement Cost = current cost to purchase or reproduce



Net Realizable Value minus a normal profit margin (floor) (shouldn't value inventory for less than a company can receive for it and still earn a normal profit).

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Selling Price	$160
Packaging cost	10
Transportation cost	15
Profit margin	25%

Selling Price	**$160**
Less: Costs of completion (packaging)	(10)
Costs of disposal (transportation)	(15)
Ceiling (net realizable value) NRV	**$135**
Less: Normal profit margin	(40)
Floor (NRV less normal profit)	**$ 95**

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	Cost	RC	NRV (Ceiling)	NRV-NP (Floor)	Market	LCM
X	$1,000	$1,100	$1,500	$1,200	$1,200	$1,000
Y	3,000	2,600	2,500	2,000	2,500	2,500
Z1	2,000	1,500	1,800	1,440	1,500	1,500
Z2	4,000	4,700	5,000	4,000	4,700	4,000

	Cost	Market	Individual	Categories	Total
X	$1,000	$1,200	$1,000		
Y	3,000	2,500	2,500		
	4,000	3,700		3,700	
Z1	2,000	1,500	1,500		
Z2	4,000	4,700	4,000		
	6,000	6,200		6,000	
	$10,000	$9,900	$9,000	$9,700	$9,900

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Cost	RC	NRV	NRV-NP	Market	LCM
90	37	76	56	56	56

Year 1: 90 – 56 = 34 loss (write down)
Year 2: 76 – 56 = 20 gross profit

If no floor . . .
Year 1: 90 – 37 = 53 loss (write down)
Year 2: 76 – 37 = 39 gross profit (normal profit is 20)

Without a floor, income is shifted from the period of the loss (decline in value of inventory) to the period the inventory is sold.

IAS 2

- Uses LCM for individual items (some categories).
- DMV = NRV, no floor or ceiling
- Inventory may be written back up in value.

Adjusting Cost to Market

Facts: Ending inventory → Cost = $20,000 Market = $18,000

Direct Method — *Individual Items*

Periodic

Inventory (Ending)	18,000	
Income Summary		18,000
Income Summary	xxxxx	
Inventory (Beg)		xxxxx

Perpetual

Cost of Goods Sold	2,000	
Inventory		2,000

Allowance Method (Indirect) — *Category and Total*

Periodic

Inventory (Ending)	20,000	
Income Summary		20,000
Income Summary	xxxxx	
Inventory (Beg)		xxxxx
Loss on WD of Inventory	2,000	
Allowance to Reduce Inventory to Market		2,000

Perpetual

Loss on WD of Inventory	2,000	
Allowance to Reduce Inventory to Market		2,000

Direct Method	Allowance Method (Indirect)

Periodic

Income Statement

Beginning inventory	xxxxx
Net purchases	xxxxx
Goods available for sale	70,000
Less: Ending inventory	(18,000)
Cost of goods sold	52,000

Balance Sheet

Inventory at LCM	18,000

Income Statement

Beginning inventory	xxxxx
Net purchases	xxxxx
Goods available for sale	70,000
Less: Ending inventory	(20,000)
	50,000
Loss on write-down of inventory	2,000
Cost of goods sold	52,000

Balance Sheet

Inventory at cost	20,000
Less: Allowance to reduce Inventory to market	(2,000)
Inventory at LCM	18,000

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Direct Method	Allowance Method (Indirect)

Perpetual

Income Statement

Sales	$xxxxxx
Cost of goods sold	52,000
Gross profit	$ xxxxx

Balance Sheet

Inventory at LCM	18,000

Income Statement

Sales	$xxxxxx
Cost of goods sold	50,000
Gross profit	xxxxx
Loss on WD of inventory	(2,000)
	$ xxxxx

Balance Sheet

Inventory at cost	20,000
Less: Allowance to reduce Inventory to market	(2,000)
Inventory at LCM	18,000

Gross Profit Method

Beginning Inventory		$21,000
Plus: Net purchases		55,000
Goods available for sale		76,000
Net sales	75,000	
Less: Estimated gross profit of 30%	(22,500)	
Estimated cost of goods sold		52,500
Estimated ending inventory		$23,500

- Assumes gross margin is reasonably constant.
- Use on a product by product basis or look at product mix to make sure it remains constant.
- Wholesalers/distributors – destroyed inventory, interim reports, test reasonableness, and budgets/forecasts.
- Not permitted by GAAP for year-end statements.

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Retail Inventory Method – Average Cost

	Cost	Retail
Beginning Inventory	$21,000	$35,000
Plus: Net purchases	55,000	80,000
Goods available for sale	76,000	115,000
Cost-to-retail % $\frac{76,000}{115,000}$ = 66%		
Less: Net sales		(75,000)
Ending inventory (**retail**)		40,000
Estimated ending inventory (**cost**)		
40,000 x 66% = 26,400	26,400	
Estimated cost of goods sold	$49,600	

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Retail Inventory Method - FIFO

	Cost	Retail
Beginning Inventory	$21,000	$35,000
Plus: Net purchases	55,000	80,000
Goods available for sale	76,000	115,000
Cost-to-retail % $\frac{55,000}{80,000}$ = 68.75%		
Less: Net sales		(75,000)
Ending inventory (**retail**)		40,000
Estimated ending inventory (**cost**)		
40,000 x 68.75% = 27,500	27,500	
Estimated cost of goods sold	$48,500	

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Retail Inventory Method - LIFO

	Cost	Retail
Beginning Inventory	$21,000	$35,000
Plus: Net purchases	55,000	80,000
Goods available for sale	76,000	115,000
Cost-to-retail % $\frac{21,000}{35,000}$ = 60%		
Cost-to-retail % $\frac{55,000}{80,000}$ = 68.75%		
Less: Net sales		(75,000)
Ending inventory (**retail**)		40,000
Estimated ending inventory (**cost**)		
35,000 x 60% = 21,000		
5,000 x 68.75% = 3,438	24,438	
Estimated cost of goods sold	$51,562	

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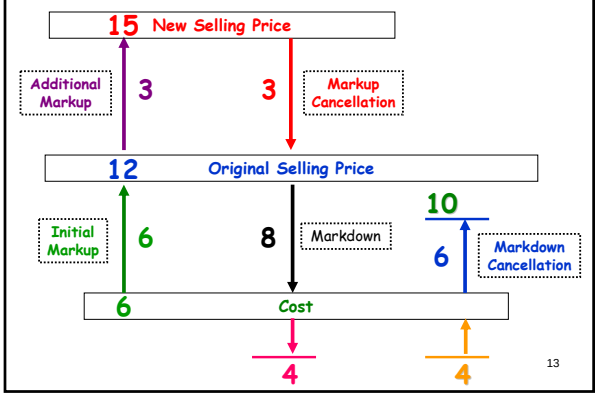
Markups/Markdowns



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Retail Inventory Method – Average Cost

(Markdown Assumption: Change in pricing structure.)

	Cost	Retail
Beginning Inventory	$21,000	$35,000
Plus: Net purchases	55,000	80,000
Net markups		9,000
Less: Net markdowns		(4,000)
Goods available for sale	76,000	120,000
Cost-to-retail % $\frac{76,000}{120,000}$ = 63.3%		
Less: Net sales		(75,000)
Ending inventory (retail)		45,000
Estimated ending inventory (cost)		
45,000 x 63.3% = 28,485	28,485	
Estimated cost of goods sold	$47,515	

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Conventional Retail Method - LCM

(Markdown Assumption: Decline in value of inventory.)

	Cost	Retail
Beginning Inventory	$21,000	$35,000
Plus: Net purchases	55,000	80,000
Net markups		9,000
		124,000
Cost-to-retail % $\frac{76,000}{124,000}$ = 61.3%		
Less: Net markdowns		(4,000)
Goods available for sale	76,000	120,000
Less: Net sales		(75,000)
Ending inventory (retail)		45,000
Estimated ending inventory (cost)		
45,000 x 61.3% = 27,585	27,585	
Estimated cost of goods sold	$48,415	

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LIFO Retail Method

	Cost	Retail
Beginning Inventory	21,000	35,000
Plus: Net purchases	55,000	80,000
Net markups		9,000
Less: Net markdowns		(4,000)
Goods available for sale - w/o BI	55,000	85,000
Goods available for sale - with BI	76,000	120,000
Cost-to-retail % $\frac{21,000}{35,000}$ = 60%		
Cost-to-retail % $\frac{55,000}{85,000}$ = 64.7%		
Less: Net sales		(75,000)
Ending inventory (retail)		45,000
Estimated ending inventory (cost)		
35,000 x 60% = 21,000		
10,000 x 64.7% = 6,470	27,470	
Estimated cost of goods sold	$48,530	

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Dollar-Value LIFO Retail

	Cost	Retail
Beginning Inventory	21,000	35,000
Plus: Net purchases	55,000	80,000
Net markups		9,000
Less: Net markdowns		(4,000)
Goods available for sale - w/o BI	55,000	85,000
Goods available for sale - with BI	76,000	120,000
Cost-to-retail % $\frac{21,000}{35,000}$ = 60%		
Cost-to-retail % $\frac{55,000}{85,000}$ = 64.7%		
Less: Net sales		(75,000)
Ending inventory (retail)		45,000
Estimated ending inventory (cost)		
$\frac{45,000}{1.05}$ = 42,857		
35,000x1.00x60%= 21,000		
7,857x1.05x64.7%=5,338	26,338	
Estimated cost of goods sold	$49,662	

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Inventory Errors

		#1 BI=15	#2 P=75	#3 EI=5	#4 EI=12
Beginning inventory	20	15 U	20	20	20
Net purchases	70	70	75 O	70	70
Goods available for sale	90	85 U	95 O	90	90
Ending inventory	10	10	10	5 U	12 O
Cost of goods sold	80	75 U	85 O	85 O	78 U
Gross profit	xx	xx O	xx U	xx U	xx O
Net income	xx	xx O	xx U	xx U	xx O
Retained earnings	xx	xx O	xx U	xx U	xx O
BI Next Year	xx	xx ?	xx ?	xx U	xx O

Year 1			Year 2		
Beginning inventory	15		Beginning inventory	8	U
Net purchases	60		Net purchases	90	
Goods available for sale	75		Goods available for sale	98	U
Ending inventory	8	U	Ending inventory	30	
Cost of goods sold	67	O	Cost of goods sold	68	U
Gross profit	xx	U	Gross profit	xx	O
Net income	xx	U	Net income	xx	O
Retained earnings	xx	U	Retained earnings	Corrected	

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Purchase Commitments

Purchase contract must be noncancelable.

Executory Contract

On December 1, Alpha signed a noncancelable contract to purchase inventory on February 1 for $20,000.

No entry – footnote if material.

On December 31, the market price of the inventory had dropped to $15,000.

Estimated Loss on Purchase Commitments	5,000	
Estimated Liability on Purchase Commitments		5,000

On February 1, Alpha took possession of the inventory when the market price was at $14,000.

Purchases (Inventory)	14,000	
Estimated Liability on Purchase Commitments	5,000	
Loss on Purchase Commitments	1,000	
Cash (or Accounts Payable)		20,000

Change of Inventory Method

- ✓ Treated as change in accounting principle.
- ✓ Report change retrospectively.
- ✓ Exception: May treat change to LIFO prospectively.
- ✓ Change to LIFO requires IRS approval.
- ✓ Change to LIFO for tax purposes cannot be changed back for 5 years.
- ✓ All changes require justification that it is preferable for the operation of the business.

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