

3.8: Reporting Inventory at the Lower-of-Cost-or-Market

Learning Objectives

At the end of this section, students should be able to meet the following objectives:

1. Explain the need for reporting inventory at the lower-of-cost-or-market.
2. Use net realizable value to estimate the market value of unsold inventory at the end of the year.
3. Calculate and record the journal entry to record the adjustment to inventory when market value drops below the cost of inventory.

Question: In the example of Rider Inc., Model XY-7 bicycles have been bought and sold and one unit remains in stock at the end of the year. The cost of this model has held steady at \$260. However, its market value is likely to differ from that figure.

Assume that, because of the sales made during the period, company officials believe that a buyer will eventually be found to pay \$440 for this last bicycle. Is inventory always reported on a balance sheet at historical cost or is market (or fair) value ever taken into consideration? Should this bicycle be shown as an asset at \$260, \$440, or some other pertinent figure?

Answer: Under normal conditions, market value is rarely relevant in the reporting of inventory. For Rider Inc. this bicycle will most likely appear as an asset at its cost of \$260 until sold. Value is such a subjective figure that it is usually ignored in reporting inventory. The company has no reliable proof that the bicycle will bring in \$440 until a sale actually occurs. The conservative nature of accounting resists the temptation to inflate reported inventory figures based purely on the anticipation of a profitable transaction at some point in the future.

An exception to this rule becomes relevant if the value of inventory falls below cost. Once again, the conservatism inherent in financial accounting is easily seen. If market value remains greater than cost, no change is made in the reported balance until a sale occurs. In contrast, if the value drops so that inventory is worth less than cost, a loss is recognized immediately. Accountants often say that losses are anticipated but gains are not. As a note to the February 3, 2023 financial statements for Dollar General states, “Inventories are stated at the **lower-of-cost-or-market**” (emphasis added). Whenever inventory appears to have lost value for any reason, the accountant compares the cost of the item to its market value and the lower figure then appears on the balance sheet.

Question: When applying the lower-of-cost-or-market approach to inventory, how does the owner of the merchandise ascertain market value?

Answer: The practical problem in applying this rule arises from the difficulty in ascertaining an appropriate market value. There are several plausible ways to view the worth of any asset. For inventory, net realizable value—the amount of cash expected from an eventual sale – has become the accepted estimate for reporting purposes under GAAP. When preparing financial statements, GAAP requires that accountants consider if the net realizable value has dropped below the original cost of the inventory. If that is the case, then an adjustment to reduce inventory is needed.

Sales value. The sales value of an item can fall for any number of reasons. For example, technological innovation will almost automatically reduce the amount that can be charged for earlier models. This phenomenon can be seen whenever a new Go Pro or smart phone is introduced to the market. Older items still in stock often must be discounted significantly to attract buyers. Similarly, changes in fashions and fads can hurt the sales value of certain types of inventory. Swim suits usually are offered at reduced prices in August and September as the summer season draws to a close. Damage can also impact an owner’s ability to recoup the cost of inventory. Advertised sales tempt buyers to stores by offering scratched and dented products, such as microwaves and refrigerators, at especially low prices.

For accounting purposes, the sales value of inventory is normally defined as its estimated net realizable value. As discussed in the previous chapter, this figure is the amount of cash expected to be derived from an asset. For inventory, net realizable value is the anticipated sales price less any cost required so that the sale will occur. For example, the net realizable value of an older model digital camera might be the expected amount a customer will pay after money is spent to advertise the product. The net realizable value for a scratched refrigerator is likely to be the anticipated price of the item less the cost of any repairs that must be made prior to the sale.

Question: Inventory records are maintained at the historical cost of each item. For reporting purposes, this figure is utilized unless the market value is lower. A reduction in value can result because of a drop in net realizable value (a sales value). How is the

comparison of cost and market value actually made when inventory is reported?

Assume that Rider Inc. is currently preparing financial statements and holds two bicycles in ending inventory. Model XY-7 cost the company \$260 while Model AB-9 cost \$380. As mentioned, Model XY-7 now has a net realizable value of only \$210. The other unit, Model AB-9, has been damaged and can only be sold for \$400 after \$50 is spent for necessary repairs. What should Rider report for its asset inventory?

Answer: As a preliminary step in preparing financial statements, a comparison of the cost and market value of the inventory is made. For Rider, both reported cost amounts here must be reduced and the inventory account shown as \$560¹. The market value used for both items is the item's net realizable value of \$210 for XY-7 and \$350 (net realizable value of \$400 minus \$50) for AB-9.

Figure 3.10 Recognition of a Loss on Impaired Inventory Value

Model	Cost	Impaired Market Value	Lower of Cost or Market Value
XY-7	\$260	\$210 (replacement cost)	\$210
AB-9	380	350 (net realizable value)	350
Totals	<u>\$640</u>		<u>\$560</u>

Rider Inc. reports its inventory at the conservative \$560 amount on its balance sheet with an \$80 loss (\$640 – \$560) appearing in the income statement for this period. The journal entry to record this reduction in inventory is a credit to inventory and typically a debit to cost of goods sold. This communicates to the reader that drops in value of inventory below cost is part of the risk of doing business and holding inventory. When the drop is considered particularly unusual, a company may debit a loss on the income statement rather than the cost of goods sold expense. This simple illustration includes only one bike of each model. In more realistic scenarios, there would be several XY-7 unsold at the end of the year. If this is the case then the loss on XY-7 (\$50) would be multiplied by the number of XY-7 are unsold to get a total loss. This would be the amount of the journal entry rather than just the loss on one.

Check Yourself

Gorilla, Inc. has 10 sets of virtual reality goggles in its inventory on December 31, 2023. Each of these sets of goggles cost Gorilla \$900 when they were purchased. Right at the end of December, a new technology was released that greatly improved the performance of virtual reality. Gorilla's inventory has become somewhat obsolete. Where normally, Gorilla would sell the goggles for \$1,500, for the 10 still unsold, Gorilla estimates that if shipped outside the country, they can still be sold for \$400 and they would pay \$50 each in extra shipping. What amount should Gorilla reduce its inventory by on December 31?

- A. \$4,500
- B. \$4,000
- C. \$5,500
- D. Zero

The answer is C. The original cost of the inventory was \$900 each so the total would be \$9,000 for all 10. The net realizable value for the goggles is \$350 = \$400 – \$50 each. For 10 that is \$3,500. So inventory must go down by \$5,500 (9,000 – 3,500). This would be recorded as an adjusting entry December 31 of a credit to inventory of \$5,500 and debit to cost of goods sold \$5,500 unless this is a very unusual drop in value.

Key Takeaways

Inventory is traditionally reported on a company's balance sheet at its historical cost. However, reductions can be made based on applying the conservative lower-of-cost-or-market approach. Net realizable value (expected sales price less any costs necessary to sale) may become less than cost because of changes in fads or technology or possibly as a result of damage. Consequently, the reported inventory figure should be reduced if this market values is below cost.

¹In applying the lower-of-cost-or-market to inventory, the comparison can be made on an item-by-item basis. For example, XY-7 can be valued based on cost and market value and then, separately, a similar determination can be made for AB-9. A company can also group its inventory (all bicycles, for example, might comprise one group that is separate from all motorcycles) and report the lower amount determined for each of these groups. A third possibility is to sum the cost of all inventory and make a single comparison of that figure to the total of all market values. U.S. GAAP does not specify a mechanical approach to use in applying lower-of-cost-or-market value.

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