Financial Accounting, Seventh Canadian Edition

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CHAPTER 7: Reporting and Interpreting Cost of Sales and Inventory

What You Really Need to Know

1. Apply the cost principle to identify the amounts that should be included in inventory, and apply the matching process to determine the cost of sales for typical retailers, wholesalers, and manufacturers.

Inventory is an asset that is either (1) held for sale n the ordinary course of business or (2) used in the process of production of goods for sale or rendering of services. Costs flow into inventory when goods are purchased or manufactured, and they flow out (as an expense) when the goods are sold or otherwise disposed of. In conformity with the matching process, the total cost of sales during the period must be related to the sales revenue earned during the period.

Companies that do not manufacture but purchase product for resale are referred to as Merchandisers. These goods are referred to as merchandise inventory. However, companies that manufacture goods have three types of inventory: raw materials (items acquired by purchase, growth or extraction for processing into finished goods); work-in-process inventory (goods in the process of being manufactured by not yet complete); finished goods inventory (completed or manufactured product). Of important note is any costs to get the product ready for its intended use (i.e. to sell) is included in the value of inventory.

The relationship between beginning inventory (BI), new purchases made during an accounting period (P), the inventory that remains at the end of a period (EI) and the cost of the amount that has been sold can be illustrated through the cost of sales equation: BI + P – EI = COS.

A company can keep track of the ending inventory and cost of sales for the period using (1) the perpetual inventory system, which is based on the maintenance of detailed and continuous inventory records for each kind of inventory stocked, and (2) the periodic inventory system, which is based on a physical inventory count of ending inventory and the costing of those goods to determine the proper amounts for cost of sales and ending inventory.

2. Record inventory and cost of sales by using three inventory costing methods.

The chapter discussed three different inventory costing methods and their applications in different economic circumstances. The methods are: specific identification (the cost of each item sold is identified and recorded as cost of sales), FIFO (the cost of the item first-in is the cost of the item first-out), and weighted-average cost (the cost of the items sold is based on a weighted-average unit cost of the goods available for sale). Each of the inventory costing methods is in conformity with IFRS. Remember that the cost flow assumption need not match the physical flow of inventory.

Some international jurisdictions also allow a fourth inventory costing method, LIFO. The LIFO method is used mainly by U.S. companies, and is no longer an acceptable inventory costing method under IFRS or Canadian Accounting Standards for Private Enterprises (ASPE).

3. Select the inventory costing method that reports the most faithful representation and relevant information to users of financial statements.

The selection of a method of inventory costing is important because it will affect reported net earnings, income tax expense (and, hence, cash flow), and the inventory valuation reported on the statement of financial position. In a period of rising prices, FIFO results in a higher profit and higher income taxes than does weighted-average cost; in a period of falling prices, the opposite result occurs.

Managers should choose the method that best reflects the company's economic circumstances for financial reporting purposes considering the effect on net earnings and income taxes.

4. Report inventory at the lower of cost and net realizable value (LC&NRV).

Ending inventory should be measured based on the lower of actual cost or net realizable value (LC&NRV basis). This practice can have a major effect on the statements of companies facing declining costs. Damaged, obsolete, and out-of-season inventory also should be written down to their current estimated net realizable value if that is below cost. The LC&NRV adjustment increases cost of sales, decreases net earnings, and decreases reported inventory in the year of the write-down.

Under IFRS, the LC&NRV rules must be applied to all inventories, item by item, regardless of the inventory costing methods that a company uses.

5. Describe methods for controlling inventory, and analyze the effects of inventory reporting errors on financial statements.

Various control procedures can limit theft or mismanagement. The following are the most important control features:

1. Separation of responsibilities for inventory accounting and physical handling of inventory
2. Storage of inventory in a manner that protects it from theft and damage
3. Limiting access to inventory to authorized employees
4. Maintaining perpetual inventory records (described below)
5. Comparing perpetual records to periodic physical counts of inventory

The first three features protect inventory while the last two ensure the accuracy of reporting inventory costs.

An error in the measurement of ending inventory affects the cost of sales on the current period's statement of earnings and ending inventory on the statement of financial position. It also affects the cost of sales in the following period by the same amount, but in the opposite direction, because this year's ending inventory becomes next year's beginning inventory. These relationships can be seen through the cost of sales equation, (BI + P – EI = COS).

6. Evaluate inventory management by using the inventory turnover ratio, and analyze the effects of inventory on cash flows.

The inventory turnover ratio measures the efficiency of inventory management. It reflects how many times the average inventory was produced and sold during the period. A higher ratio indicates that inventory moves more quickly through the operating cycle, reducing storage and obsolescence costs. Analysts and creditors watch this ratio because a sudden decline in this ratio may mean that a company is facing an unexpected decline in demand for its products or is becoming sloppy in its production management. Alternatively, the average days to sell inventory (365 ÷ Inventory Turnover Ratio) indicates the average time it takes the company to purchase or manufacture finished goods and deliver them to customers. The lower the number of days the faster inventory is being sold.

Effects on cash flows – When a net *decrease in inventory* for the period occurs, sales are more than purchases; thus, the decrease must be *added to net earnings in computing cash flows from operations*. When a net *increase in inventory* for the period occurs, sales are less than purchases; thus, the increase must be *subtracted from net earnings in computing cash flows from operations*.

Recognize how to find financial information in the financial statements.

STATEMENT OF FINANCIAL POSITION
Reported in Current Assets
Inventory

STATEMENT OF EARNINGS
Expenses
Cost of sales

STATEMENT OF CASH FLOWS
Under Operating Activities (Indirect Method)
Net earnings
+ decreases in inventory
– increases in inventory
+ increases in accounts payables
– decreases in accounts payables

NOTES
Reported in Summary of Significant Accounting Policies:
Description of management's choice of inventory accounting policy (FIFO, weighted-average cost, LC&NRV, etc)
Reported in a Separate Note
If not listed on the statement of financial position, components of inventory (merchandise, raw materials, work-in-process, finished goods)

What to Watch Out For

Overview

This chapter continues the in-depth discussion of various items reported on the financial statements. Initially, emphasis is placed on statement of earnings transactions that involve cost of sales. A variety of reporting issues relating to cost of sales and inventory are addressed, as is the computation and interpretation of the inventory turnover ratio. In addition to covering the three inventory costing methods, the decision related to the choice of an inventory costing method is overviewed. Coverage of the two inventory systems commonly used, FIFO and weighted average, to keep track of inventory quantities and amounts in different circumstances is then discussed. Measurement issues that arise when damaged, obsolete, and deteriorated items exist in inventory are addressed in light of the lower of cost & net realizable value rule (LC&NRV).

The Cost Principle and Matching Process

The chapter begins by defining inventory, which is reported as a current asset on the statement of financial position in accordance with the cost principle. You will be expected to be able to describe the various types of inventory items that are included on the statement of financial position of both merchandisers and manufacturers.

After discussing the nature of cost of sales, the flow of inventory costs from inventory to cost of sales is described. In conformity with the matching process, the total cost of the goods sold during the period must be determined and then matched with the sales revenue earned from selling those goods. In this regard, the goods available for sale must be allocated to cost of sales and ending inventory (using one of the inventory costing methods described below).

Inventory Costing Methods

Under IFRS, any of three generally accepted methods can be used to allocate the cost of inventory available for sale between goods that are sold and goods that remain on hand at the end of the accounting period. Specific identification assigns costs to ending inventory and cost of sales by tracking and identifying each specific item of inventory. Under FIFO, the costs first-in are assigned to cost of sales, and the costs last-in (most recent) are assigned to inventory that is still on hand in ending inventory. Under weighted-average cost, the weighted-average cost per unit of inventory is assigned equally to goods sold and those still on hand in ending inventory. In U.S. GAAP, a fourth method (that is no longer used in Canada) is described, LIFO (last-in, first-out), where the costs last in are assigned to cost of sales, and the costs first in (oldest) are assigned to the inventory that is still on hand in ending inventory.

You will need to become familiar with each of the three inventory-costing methods: FIFO, average cost and specific identification. All three methods are in conformity with IFRS, but produce different results. You will need to be able to determine both the

amount of inventory on hand and the cost of sales using the FIFO, average cost and specific identification methods.

Given a certain set of assumptions (for example, rising unit prices) you should be able to determine how the choice of an inventory costing method affects the financial statements (that is, the amount of ending inventory reported on the statement of financial position and the amounts of cost of sales and gross profit reported on the statement of earnings) and the amount of income taxes that are paid (or postponed) by the company. The comparison of financial information of different companies is complicated when the companies use different inventory costing methods. As a result, so that you will be able to make meaningful comparisons, you will also be expected to be able to use the cost of sales equation to convert inventory and cost of sales and earnings before income taxes from FIFO to average basis amounts (and vice versa).

Financial Statement Matters

You should be familiar with the reporting of inventory and cost of sales as well as the calculation of the inventory turnover ratio and average days to sell inventory. You should understand what this ratio is measuring so that you will be able to interpret it.

Valuation at Lower of Cost and Net Realizable Value

The lower of cost and net realizable value (LC&NRV) rule requires that ending inventory be reported on the statement of financial position at the lower of actual cost (determined using one of the three inventory costing methods) and net realizable value. Net realizable value is essentially an estimate of the net amount that a company expects to receive for selling its inventory on a specific date. The application of this rule can significantly impact the financial statements of companies facing declining unit costs. When the LC&NRV must be applied, ending inventory decreases while cost of sales increases causing net earnings to decrease.

Perpetual and Periodic Inventory Systems

You should also become familiar with the two systems used to keep track of inventory. When deciding which system to use, managers must weigh benefits of the availability of this information for inventory management purposes against the higher recordkeeping costs.

When a perpetual inventory system is used, detailed inventory records are maintained and updated as transactions affecting inventory occur. As such, management always (or perpetually) knows how much inventory is on hand and its cost of sales. The Inventory account should include costs incurred to get inventory into a condition and location ready for sale. The cost of inventory includes its purchase price and transportation (freight-in) minus cost reductions for purchase returns and allowances and purchase discounts. You will be expected to analyze transactions relating to purchases of inventory, the payment of costs to transport inventory (freight-in), returns of inventory to and allowances granted

by suppliers, and the payment of amounts due to suppliers (whether or not the company chooses to take advantage of the purchase discount).

When a periodic inventory system is used, detailed inventory records are not maintained. Instead, the company counts its inventory to determine how much is on hand at the end of the accounting period and the cost of the goods that have been sold. Information necessary for inventory management is lacking (that is, it is available only periodically), but recordkeeping costs are minimal. You will be expected to analyze transactions relating to purchases of inventory (freight-in), returns of inventory to and allowances granted by suppliers, and the payments of amounts due to suppliers (whether or not the company chooses to take advantage of the purchase discount).

Errors in Inventory

Using the relationship of the various items in the cost of sales equation, you will be expected to explain how errors in ending inventory affect the financial statements. In this regard, note that this year's ending inventory becomes next year's beginning inventory. As a result, inventory errors always affect two years' worth of statement of earnings and are self-correcting.