

## CH. 4 – REPORTING AND ANALYZING MERCHANDISING OPERATIONS

→ Chapters 1, 2, and 3 covered the mechanics of accounting – how to analyze, record, process, and report accounting information to outside users. This chapter covers how accountants report merchandising activities (which are different from service activities) and how merchandise purchases and sales transactions are recorded.

### **[1] – Describe merchandising activities and identify income components for a merchandising company.**

- Merchandisers purchase goods (inventory) for resale to consumers. Wholesale, retail.
- Sales – Cost of Goods Sold = Gross Profit (Margin) – Operating Expenses = Net Income

### **[2] – Identify and explain the inventory asset of a merchandising company.**

- Merchandise inventory: a current asset.

### **[3] – Describe both perpetual and periodic inventory systems.**

**PERPETUAL (modern):** Purchases and sales both affect Inventory directly.

**PERIODIC (older, manual systems):** Purchases are recorded in a temporary Purchases account.

### **[4] – Analyze and record transactions for merchandise purchases using a perpetual system.**

Merchandise purchases are Debited to Merchandise Inventory.

Cost of merchandise + incoming freight – cash discounts – returns & allowances = net cost of purchases.

(QS4-1)

### **[5] – Analyze and record transactions for merchandise sales using a perpetual system.**

- Recording a sale requires **two entries**:
  - [1] DR Cash or A.R., CR Sales Revenue
  - [2] DR Cost of Goods Sold, CR Inventory
- Sales discounts are offered to encourage prompt payment of accounts receivable.
- Sales returns & allowances: [1] DR Sales Returns & Allowances account, CR A.R.
  - [2] DR Inventory, CR C.O.G.S.
- Most merchandisers have separate accounts for Sales discounts, returns & allowances, to be able to track these items separately.

(QS4-2),E4-3, E4-13

[6] – Prepare adjustments and close accounts for a merchandising company.)

- Adjusting entries and essentially the same. To record inventory shortages, DR COGS, CR Inv.
- Closing accounts:
  - [1] Close credit balances in nominal accounts to Income Summary.
  - [2] Close debit balances in nominal accounts to Income Summary.
  - [3] Close Income Summary to Retained Earnings
  - [4] Close Dividends to Retained Earnings.

**[7] – Define and prepare multiple-step and single-step income statements.**

MULTIPLE-STEP FORMAT:

Sales – COGS = GM – Oper. Expenses = Oper. Income +/- other items = Net income

SINGLE-STEP FORMAT:

Revenues – Expenses = Net income

COST OF GOODS SOLD CALCULATION:

Beginning inventory  
+ net purchases  
= Goods Available for Sale (GAFS)  
– ending inventory  
= Cost of Goods Sold (COGS)

**[8] – Compute the acid-test ratio and explain its use to assess liquidity.**

Acid-test ratio = (cash & equivalents + S.T. investments + receivables) / current liabilities

→ A more stringent measure of liquidity. Focuses on more liquid current assets. Excludes inventories and prepaids).

(QS4-6)
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**[9] – Compute the gross margin ratio and explain its use to assess profitability.**

Gross margin ratio = Gross margin / Net sales revenue

→ Shows the percentage of sales left over to cover operating expenses and provide for net income after subtracting the cost of the goods that were sold.

*Ch. 4 Discussion Questions: 2, 3, 4, 6, 7, 8, and 10.*

*Ch. 4 Quick Review Exercises.*

*Questions?*

**Chapter 4 – Quick Review Exercises:**

**QS4-1. Recording purchases, perpetual system.**

<i>DATE</i>	<i>ACCOUNT</i>	<i>DEBIT</i>	<i>CREDIT</i>
Mar. 5	_____	_____	_____
	_____		_____
Mar. 7	_____	_____	_____
	_____		_____
Mar. 15	_____	_____	_____
	_____		_____
	_____		_____

**QS4-2. Recording sales, perpetual system.**

<i>DATE</i>	<i>ACCOUNT</i>	<i>DEBIT</i>	<i>CREDIT</i>
Apr. 1	(1) _____	_____	_____
	_____		_____
	(2) _____	_____	_____
	_____		_____
Apr. 4	(1) _____	_____	_____
	_____		_____
	(2) _____	_____	_____
	_____		_____
Apr. 11	_____	_____	_____
	_____		_____
	_____		_____

QS4-6. Acid-test ratio = Quick current assets (cash & receivables) / Total current liabilities.

Acid-test ratio = \$ \_\_\_\_\_ / \$ \_\_\_\_\_ = \_\_\_\_\_

Measures: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## CH. 5 – REPORTING AND ANALYZING INVENTORIES

→ Chapter 4 focused on recording merchandise purchases and sales in a perpetual inventory system. This chapter emphasizes how accountants value inventories for the purpose of calculating cost of goods sold, net income, and the value of ending inventory reported on the balance sheet.

### [1] – Identify the items making up merchandise inventory.

- **Goods in transit** – ownership depends on F.O.B. point.
- **Goods away on consignment** – consignor still owns them.
- **Damaged or obsolete goods** – not counted if unsalable, but counted at net realizable value if can be sold at a reduced price.

### [2] – Identify the costs of merchandise inventory.

- **Invoice cost, minus discount, plus incoming freight, storage, insurance.**
  - A physical inventory is taken even with a perpetual system, to verify accuracy of book amounts.
- **COST OF GOODS SOLD (COGS):**  
**Beginning inventory + Purchases = GAFS – Ending inventory = COGS**

### [3] – Compute inventory in a perpetual system using the methods of [1] specific identification, [2] FIFO, [3] LIFO, and [4] weighted average.

→ These methods are all cost-flow assumptions (NOT goods flow). All are acceptable under GAAP:

**[1]. Specific identification.** Computer system keeps detailed records of purchases, sales, and inventory.

**[2]. FIFO (LISH).** COGS includes beginning inventory plus earliest purchases. Ending inventory equals unsold latest purchases.

**[3]. LIFO (FISH).** COGS includes most recent purchases. Ending inventory equals beginning inventory plus unsold earliest purchases.

**[4]. Weighted average.** Ending inventory is valued using the weighted average cost of goods. Weighted average = GAFS divided by number of units available for sale.

(QS5-3), E5-1

### [4] – Analyze the effects of inventory methods for both financial and tax reporting.

- When prices are **rising**, LIFO results in the highest COGS, lowest ending inventory, and lowest net income. FIFO results in the highest ending inventory, lowest COGS, and highest net income.
- When prices are steady, FIFO, LIFO, and weighted average will all give the same value to ending inventory.

(QS5-4)

**[5] – Compute the lower of cost or market amount of inventory.**

- When the market value of inventory is less than its cost, GAAP requires the inventory to be valued at the lower (market) value: Lower of cost or market (LCM) rule. → *Conservatism concept*.
- Calculation may be one of three types:
  - 1) Each item separately.
  - 2) Major categories of items.
  - 3) Entire inventory.
- Downward adjustment is to debit COGS, credit Inventory.

**E5-5**

**[6] – Analyze the effects of inventory errors on current and future financial statements.**

- Effects of an error on the statements:
  - 1) Understated ending inventory → overstated COGS → understated net income
  - 2) Overstated ending inventory → understated COGS → overstated net income
  - 3) Understated ending inventory this year becomes understated beginning inventory next year, so
  - 4) Understated beginning inventory → understated COGS → overstated net income (and vice versa).
- If nothing is done to correct the error, it will automatically correct itself the following year, BUT in the meanwhile, income statement and balance sheet information are incorrect, which could lead to improper decisions by investors.

**E5-6**

**[7] – Assess inventory management using both inventory turnover and days' sales in inventory.**

**TURNOVER = COGS / Avg. inventory**

*Measures the efficient use of inventory investment. Up to a point, a faster turnover is better.*

**Days' sales in inventory (DSI) = (Ending inventory / COGS) x 365**

*Companion statistic. Measures the number of days of inventory remaining at the present rate of sales.*

**(E5-7)**

*Ch. 5 Discussion Questions – pg. 223: 1, 4, 5, 6, 8, 11*

*Ch. 5 Quick Review Exercises.*

*Questions?*

**Chapter 5 – Quick Review Exercises.**

QS5-3. Assigning costs to inventory, perpetual system.

<u>(a). FIFO</u>	<i>PURCHASES</i>			<i>SOLD</i>			<i>ENDING INVENTORY</i>		
<i>Date</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>
Dec. 7	_____	_____	_____				_____	_____	_____
Dec. 14	_____	_____	_____				_____	_____	_____
Dec. 15				_____	_____	_____			
				_____	_____	_____			
Dec. 21	_____	_____	_____				_____	_____	_____
	-----		-----	-----		-----	-----		-----
Totals	_____		_____	_____		_____	_____		_____

<u>(b). LIFO</u>	<i>PURCHASES</i>			<i>SOLD</i>			<i>ENDING INVENTORY</i>		
<i>Date</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>
Dec. 7	_____	_____	_____				_____	_____	_____
Dec. 14	_____	_____	_____				_____	_____	_____
Dec. 15				_____	_____	_____	_____	_____	_____
				_____	_____	_____	_____	_____	_____
Dec. 21	_____	_____	_____				_____	_____	_____
	-----		-----	-----		-----	-----		-----
Totals	_____		_____	_____		_____	_____		_____

<u>(c). Wtd. Avg.</u>	<i>PURCHASES</i>			<i>SOLD</i>			<i>ENDING INVENTORY</i>		
<i>Date</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>
Dec. 7	_____	_____	_____				_____	_____	_____
Dec. 14	_____	_____	_____				_____	_____	_____
Dec. 15				_____	_____	_____	_____	_____	_____
Dec. 21	_____	_____	_____				_____	_____	_____
	-----		-----	-----		-----	-----		-----
Totals	_____		_____	_____		_____	_____		_____

<u>(d). Sp. ID</u>	<i>PURCHASES</i>			<i>SOLD</i>			<i>ENDING INVENTORY</i>		
<i>Date</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>	<i>Units</i>	<i>Price</i>	<i>Total</i>
Dec. 7	_____	_____	_____				_____	_____	_____
Dec. 14	_____	_____	_____				_____	_____	_____
Dec. 15				_____	_____	_____	_____	_____	_____
				_____	_____	_____	_____	_____	_____
Dec. 21	_____	_____	_____				_____	_____	_____
	-----		-----	-----		-----	-----		-----
Totals	_____		_____	_____		_____	_____		_____

**QS5-9. Applying LCM to inventories.**

<i>Product</i>	<i>Quan.</i>	<i>Cost per Unit</i>	<i>Market per Unit</i>	<i>Total Cost</i>	<i>Total Market</i>	<i>Lower of Cost or Mkt.</i>
Mountain bikes	_____	_____	_____	_____	_____	_____
Skateboards	_____	_____	_____	_____	_____	_____
Gliders	_____	_____	_____	_____	_____	_____
				-----	-----	-----
Totals				_____	_____	_____

**QS5-14. Estimating inventories, gross profit method.**

(1). Estimate Cost of Goods Sold (COGS) = Net sales x (1 – Gross Profit rate)

$$\begin{aligned}
 &= \$ \underline{\hspace{2cm}} \times (1 - 0.\underline{\hspace{1cm}}) \\
 &= \$ \underline{\hspace{2cm}} \times 0.\underline{\hspace{1cm}} \\
 &= \$ \underline{\hspace{2cm}}
 \end{aligned}$$

(2). Calculate estimated value of ending inventory, using the formula to calculate COGS:

$$\begin{aligned}
 &\text{Beg. Inv.} + \text{Purchases} - \text{End. Inv.} = \text{COGS,} \\
 \text{or:} &\text{Beg. Inv.} + \text{Purchases} - \text{COGS} = \text{End. Inv.} \\
 \text{so:} &\text{Beg. Inv.} + \text{Purchases} - \text{COGS} = \text{End. Inv.} \\
 &\underline{\hspace{2cm}} + \underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \$ \underline{\hspace{2cm}}
 \end{aligned}$$

## CH. 6 – REPORTING AND ANALYZING CASH AND INTERNAL CONTROLS

→ In chapter 5, we started our tour of the balance sheet with a look at accounting for inventories. This chapter focuses on cash and, since cash is the most liquid asset and the easiest to steal, on the principles of internal control for safeguarding assets.

### **[1] – Define internal control and identify its purposes and principles.**

1. Internal control is a system used to monitor and control business activities.
2. PURPOSES:
  - a. Protect assets
  - b. Ensure reliable accounting
  - c. Promote efficient operations
  - d. Urge adherence to company policies
3. PRINCIPLES:
  - a. Establish responsibilities
  - b. Maintain adequate records
  - c. Insure assets, bond key employees
  - d. Separate recordkeeping from custody of assets
  - e. Divide responsibility for related transactions
  - f. Apply technological controls
  - g. Perform regular and independent reviews
4. LIMITS ON INTERNAL CONTROL:
  - a. Human element – error, fraud
  - b. Cost-benefit rule
5. CONTROL OF CASH:
  - a. Separate handling from recordkeeping.
  - b. Deposit cash receipts in the bank promptly.
  - c. Make all disbursements by check.

### E6-3

### **[2] – Define cash and cash equivalents, explain how to report them.**

**CASH – currency, coin, checks, money orders, amounts deposited in financial institutions.**

**CASH EQUIVALENTS – Short-term highly liquid investments.**

→ Companies typically combine both into a single item on the balance sheet.

### **[3] – Apply internal control to cash receipts and disbursements.**

Receipts – Record on P.O.S. terminal, give receipt, separate custody from recordkeeping.

Disbursements – Pay by check, voucher system with approvals, petty cash, separate bank reconciliation.

**[4] – Identify control features of banking activities.**

Bank account – limited access, signature card, deposit ticket, checks

Bank statement – monthly reconciliation.

**[5] – Prepare a bank reconciliation.**

*Purpose of a reconciliation:* Prove accuracy of bank and company records by [1] explaining difference between bank ending balance and company ending cash balance, [2] identifying items on bank statement not yet recorded on company records, [3] identifying bank and company errors.

*Procedure:*

- To balance per bank, add deposits in transit, subtract outstanding checks, to get adjusted bank balance.
- To balance per books, add or subtract items on bank statement but not yet on company records to get adjusted balance per books.
- Adjusted balances should be the same.
- Make journal entries for changes in book balance.

E6-8

**[6] – Compute the days' sales uncollected ratio and use it to assess liquidity.**

Days' Sales Uncollected (DSO, Days' Sales in Receivables) =  $(AR / Net\ Sales) \times 365$

*Used to assess liquidity, efficiency of collection effort.*

(QS6-7)

*Ch. 6 Discussion Questions – pg. 267: 1, 2, 3, 6, 10.*

*Ch. 6 Quick Review Exercises.*

*Questions?*

**Chapter 6 – Quick Review Exercises.**

**E6-8. Bank Reconciliation.**

**DEL GATO CLINIC  
Bank Reconciliation  
As of June 30, 2008**

Cash balance, June 30, per bank	\$ _____	Cash balance, June 30, per books	\$ _____
Add: Deposits not in	_____	Add: error recording check 919	_____
	-----		-----
Sub-total	_____	Sub-total	_____
Less: Outstanding checks	_____	Less: Bank service charge	_____
	-----		-----
Adjusted balance per bank	\$ _____	Adjusted balance per books	\$ _____
	=====		=====

*Question: Which cash balance will appear on the company's June 30, 2008, balance sheet?*

**E6-9. Adjusting entries from bank reconciliation.**

<i>DATE</i>	<i>ACCOUNT</i>	<i>DEBIT</i>	<i>CREDIT</i>
Jun. 30	_____	_____	_____
	_____		_____
Jun. 30	_____	_____	_____
	_____		_____