

Current assets

1. Current assets: inventories for merchandise

**Merchandising companies: operating cycle and income statement**

Merchandising companies

- Purchase their inventories from other businesses in a ready-to-sell condition
- Include retailers (sell directly to public) and wholesalers (buy from manufacturer and sell to retailers)

Operating cycle

1. Purchases of goods
2. Sales of goods
3. Collection of accounts receivable and payment of payables to suppliers
4. Taking physical inventories and making adjustments

Income statement

Income statements of merchandising companies differ from service organisations. There is special consideration for cost of goods sold – an especially important expense – and it is shown separately from other expenses in the company's income statement.

**SERVICE COMPANY'S INCOME STATEMENT**

Revenue

minus

Expenses

equals

Profit

**MERCHANDISING COMPANY'S INCOME STATEMENT**

Sales

minus

Cost of Goods Sold

equals

Gross Profit

minus

Other Expenses

equals

Profit

- Other expenses – such as good delivery to customer, wages, rent etc. are considered as business expenses and not COGS.

**Determining costs of goods sold**

Determining cost of good (purchase price)

- At net cost (what was paid – e.g. gross price – discount)
- All costs relating to the *acquisition* of inventory (asset) are considered part of the asset cost – so this includes transportation cost on purchases.

**The flow of inventory costs**

As items are sold from inventory, their costs are removed from the statement of financial position (credited from inventory) and expensed as COGS in the income statement – but how exactly do we calculate COGS? Which units were sold? There are three methods:

Specific cost identification

- Parallels physical flow, where identifiable good sold is matched to its actual purchase cost
- Logical approach when items are uniquely identifiable and unique
- COGS = sum of individual actual product costs

Weighted average cost

- Cost of each unit = average cost of all units currently in inventory, COGS = units × current average cost
- Revised after every purchase
  - In a perpetual inventory system – this becomes moving average cost.
  - In a periodic system, average cost =  $\frac{\text{total cost of items available for the year}}{\text{total units}}$

First in first out (FIFO)

- Assumes that first item purchased is first item sold. So COGS = units × unit cost in chronological order

Last in first out (LIFO)

- Most recently purchased units are considered to account for expenses, so COGS = units × unit cost in reverse chronological order
- Not allowed under IFRS because LIFO has the lowest inventory balance, highest COGS and lowest income arising; most recent items will have highest costs due to inflation and will overstate COGS (expenses) and understate profit

Three methods evaluated		
Specific cost identification	Weighted average cost	FIFO
<ul style="list-style-type: none"><li>• Best suited for high-priced, low-volume items</li><li>• Does not make sense for homogenous/identical products since they have the same intuitive value and should not be expensed differently</li></ul>	<ul style="list-style-type: none"><li>• Good for identical items since it considers average cost (of all items)</li><li>• Conceals replacement costs of inventory as older (cheaper) costs are averaged with new costs</li></ul>	<ul style="list-style-type: none"><li>• Inventory will be valued at recent purchase costs and more accurately reflect its replacement cost</li><li>• May overstate a company's profit as older goods are probably cheaper due to inflation, leading to lower expenses and higher profit</li></ul>

**Inventory accounting systems and their operating cycle**

For a merchandising company, the inventory system must capture the revenue and cost of goods sold (direct sales expense) and tally them with changes in assets and liabilities (financial position, cash flows).

This means having a systematic way of recording the steps of the operating cycle – purchases, sales, collection of sales. There are two predominant inventory systems – perpetual and periodic.

### Perpetual inventory systems

All transactions involving cost of goods are recorded immediately as they occur. Revenue and costs of goods sold are calculated accordingly.

1. Purchases of goods: recorded at cost, directly debited to inventory (assets), credit cash or accounts payable.

Items	Debit	Credit
Inventory	xx	
Cash/Accounts Payable		xx

2. Sales of goods: revenue = sales price × units sold, credited to revenue and debited to accounts receivable/cash. The matching principle requires that the revenue be matched with the costs – so a second entry is required to record the costs of good sold and change to inventories.

Items	Debit	Credit
Sales revenue	xx	
Cash/Accounts Receivable		xx
Cost of goods sold	xx	
Inventory		xx

3. Payment of payables to suppliers, collection of receivables from customers

Items	Debit	Credit
Accounts payable (to supplier)	xx	
Cash		xx
Accounts receivable (from customers)		xx
Cash	xx	

4. Taking a physical inventory and making adjustments: physical inventories are taken to determine whether the physical count corresponds to the ledger. The inventory is then adjusted for inventory shrinkage (unrecorded decreases in inventory from theft, breakage, etc.) through debiting costs of goods sold and crediting inventories.

Items	Debit	Credit
Cost of goods sold (inventory shrinkage)	xx	
Inventory		xx

### Periodic inventory systems

The inventory account and cost of goods sold accounts are not updated as transactions occur. Costs of goods sold, amounts are determined periodically through physical counts.

1. Purchases of goods: when goods are purchased, their cost is debited to purchases account rather than inventory: debited to purchases (assets), credit cash or accounts payable.

Items	Debit	Credit
Purchases	xx	
Cash/Accounts Payable		xx

2. Sales of goods: revenue = sales price × units sold, credited to revenue and debited to accounts receivable/cash.

Items	Debit	Credit
Sales revenue	xx	
Cash/Accounts Receivable		xx

3. Payment of payables to suppliers, collection of receivables from customers

Items	Debit	Credit
Accounts payable (to supplier)	xx	
Cash		xx
Accounts receivable (from customers)		xx
Cash	xx	

4. Taking a physical inventory and computing cost of goods sold (and immaterial inventory shrinkage): the year-end inventory is determined by taking a complete physical count, from which costs of goods sold (including inventory shrinkage) is calculated.

**Costs of goods sold = inventory (beginning) + purchases – inventory (end of year)**

5. Recording inventory and costs of goods sold: post calculation and physical inventory, the values are then recorded by:
  - a. creating a cost of goods sold account, assuming all available goods were sold (beginning inventory and purchases)
  - b. then adjusting inventory and COGS for what was actually sold.

Items	Debit	Credit
Cost of goods sold	xx	
Inventory (beginning of year)		xx
Purchases		xx
Inventory (end of year)	xx	
Cost of goods sold		xx

Perpetual vs. periodic inventory systems		
Perpetual	Periodic	
<ul style="list-style-type: none"><li>company with professional management, wanting information about items in inventory and their quantities</li><li>items with high per-unit cost</li><li>low-volume of sales transactions or a computerised accounting system</li><li>merchandise stored at multiple locations, or in warehouses separate from sales sites</li></ul>	<ul style="list-style-type: none"><li>small companies</li><li>accounting records of inventories and sales not needed for daily operations – this information is only for annual auditing</li><li>inventory with many kinds, low-cost items</li><li>high volume of sales transactions and manual accounting system</li><li>all merchandise at sales site</li></ul>	
LCNRV and write-downs of physical inventory		
The value of inventory may decline because goods have become obsolete or unsalable for other reasons. With a lower inventory value, its book value should accordingly be written down to fairly represent a company's assets. It is handled as an expense, to Write-Down of inventory.		
Inventory is adjusted to the lower of historical cost or net realisable value.		
NRV = estimated selling price in the ordinary course of business – estimated costs of completion – estimated costs to make the sale		
Items	Debit	Credit
Write-down of inventory	xx	
Inventory		xx
Estimating cost of goods sold and inventory		
Taking a physical inventory every month would be expensive and time-consuming, and sometimes impossible. A business with a periodic inventory system preparing quarterly/interim financial statements or filing an insurance claim after damage to inventories will need to estimate the value of their inventories and COGS at that point in the year.		
Gross profit method		
<ul style="list-style-type: none"><li>assumed that rate of gross profit earned in preceding year (or several years) will remain the same for the current year</li></ul>		
$\text{Previous year's rate of gross profit} = \frac{\text{Net sales} - \text{COGS}}{\text{Net sales}}$		
Gross profit this year = rate of gross profit × this year's net sales		
COGS this year = (1 - rate of gross profit) × this year's net sales		
Estimated ending inventory = opening inventory + purchases - COGS		
Retail method		
<ul style="list-style-type: none"><li>Same as gross profit method, except that it requires the value of ending inventory at retail prices; so a business must keep track of goods available for sale at both cost and retail prices</li><li>Retail value of ending inventory is then converted to cost using a cost ratio</li></ul>		
Determine: physical count of ending inventory priced at retail		
$\text{Previous year's cost ratio} = \frac{\text{Goods available for sale at cost}}{\text{Goods available for sale at retail prices}}$		
Estimated ending inventory at cost = cost ratio × ending inventory at retail price		
COGS = beginning inventory + purchases – ending inventory		

Errors in inventory valuation																																																	
<p><u>Effects</u></p> <p>The most important liquid assets in the statements of financial position of most companies are cash, receivables and inventory. Inventory is often the largest of these. An error in inventory will affect:</p> <ul style="list-style-type: none"> <li>Assets, thus affecting equity</li> <li>Expenses – COGS, thus affecting gross profit and profit, and thus income taxes</li> <li>It will carry over to the next year</li> </ul> <p>Overstatement of inventory = overstatement of COGS, understatement of profit; vice versa</p> <table border="1"> <caption>Errors in Measuring Inventory</caption> <thead> <tr> <th></th><th colspan="2">Beginning Inventory</th><th colspan="2">Ending Inventory</th></tr> <tr> <th>Effect on Income Statement</th><th>Overstated</th><th>Understated</th><th>Overstated</th><th>Understated</th></tr> </thead> <tbody> <tr> <td>Goods Available for Sale</td><td>+</td><td>-</td><td>NE</td><td>NE</td></tr> <tr> <td>Cost of Goods Sold</td><td>+</td><td>-</td><td>-</td><td>+</td></tr> <tr> <td>Gross Profit</td><td>-</td><td>+</td><td>+</td><td>-</td></tr> <tr> <td>Profit for the period</td><td>-</td><td>+</td><td>+</td><td>-</td></tr> <tr> <td>Effect on Statement of Financial position</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Ending Inventory</td><td>NE</td><td>NE</td><td>+</td><td>-</td></tr> <tr> <td>Retained Earnings</td><td>-</td><td>+</td><td>+</td><td>-</td></tr> </tbody> </table> <p><b>An error in ending inventory in a year will result in the same error in the beginning inventory of the next year.</b></p> <p><u>Self-correction after two years</u></p> <p>Because the original error in the previous year has the exact opposite effects on the profit of the next year, inventory errors are 'self-correcting' over a two-year period.</p>						Beginning Inventory		Ending Inventory		Effect on Income Statement	Overstated	Understated	Overstated	Understated	Goods Available for Sale	+	-	NE	NE	Cost of Goods Sold	+	-	-	+	Gross Profit	-	+	+	-	Profit for the period	-	+	+	-	Effect on Statement of Financial position					Ending Inventory	NE	NE	+	-	Retained Earnings	-	+	+	-
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Inventory methods: company performance																																																	
<ul style="list-style-type: none"> <li>choice of model to calculate COGS does not have real impact on company – because it is merely an allocation of costs between inventory account and COGS account – profitability differences only exist on paper</li> <li>but it does have real impact on the company through income taxes</li> </ul>																																																	

## 2. Current assets: financial assets

### Financial assets

#### Financial assets

Financial assets are a company's most liquid resources – the ability of a company to service its debts, purchase inventory, pay taxes and payroll obligations hinges on the availability of these liquid assets.

There are three main types of financial assets – cash (and its equivalents)

#### Valuation of assets in statement of financial position

Financial assets are shown at their current values, though how current value is measured for each financial asset is different.

Cash (and cash equivalents)	Face amount
Short-term investments (marketable securities)	Fair value, normally current market value
Receivables - Accounts Receivables - Note Receivables	Estimated collectible amount, or cost less any impairment loss (i.e. amortized cost)

### Cash & its equivalents

#### Cash

- Defined as any item banks will accept for deposit
  - Coins, paper money, checks, money orders, traveller's checks
  - Drafts signed by customers using credit cards (so sales using bank cards are considered *cash* sales, not credit sales)

#### Cash equivalents

Some short-term investments are so liquid that they are termed cash equivalents.

- To qualify, an investment must be very safe, have a very stable market value and mature within three months from the date of acquisition
- Money market funds, US Treasury bills, high grade commercial paper (very short term notes payable that are issued by large, creditworthy corporations)

#### Restricted cash

Some bank accounts are restricted for their use, so they are not available to meet the normal operating needs of the company (e.g. an account specifically for the payment of a noncurrent liability)

#### Lines of credit

A line of credit means a bank has agreed *in advance* to lend the company any amount of money to a specified limit. A liability to the bank arises as soon as a portion of the credit line is used

- The *unused* portion of a line of credit is neither an asset nor a liability; it represents only the ability to borrow money quickly and easily
- Because it still increases a company's liquidity, lines of credit are disclosed in notes

#### Reporting Cash in the statement of financial position

- Cash and equivalents – combined under "cash and its equivalents"
- Restricted cash – under "investments and restricted funds"
- Lines of credit – disclosed in notes

#### How much cash should a business have?

- As little as necessary – because of opportunity cost
- In a well-managed company, daily cash receipts are deposited promptly in the bank – if these routine receipts exceed routine cash outlays, the company can meet its obligations while maintaining low balances
- Cash that is not needed in the immediate future is often invested in highly liquid short-term securities as they are more productive than cash

### Short-term investments

- Consist primarily of bonds (debt securities) and shares (equity securities), traded on international stock exchanges
- They can earn a return in the form of interest, dividend and an increase in market value
- Almost as liquid as cash as they can be easily sold on stock exchanges

Stages of investments: purchase → recognition of interest or dividend revenue → adjustments to market value → sale

- 

### Accounting for investments in securities

#### Purchase

- Originally recorded at fair value (cost + transaction costs). This is known as the cost basis.
- Cost per share is calculated based on this fair value including misc. costs

Items	Debit	Credit
Investment in securities	xx	
Cash		xx

#### Recognition of investment revenue

Entries to recognise interest and dividend revenue involve a debit to cash and a credit to interest revenue or dividend revenue.

Items	Debit	Credit
Investment in securities	xx	
Dividend revenue		xx
Interest revenue		xx

#### Adjusting securities to market value

Securities classified as available for sale are presented in the statement of financial position at their fair value – current market value at the end of the reporting period. (fair value accounting)

The adjustment of securities to their fair value uses an equity account (gain or loss on fair value change of investments), because this is considered a subtraction or addition to equity (a holding loss or gain).

e.g. for a gain in value, debit asset, credit equity:

Items	Debit	Credit
Investment in securities	xx	
Gain on fair value change		xx

#### Sale of investments

A gain or loss on sale appears in the 'other income/expense' section of the profit statement as gain/loss on sale of investments – it is considered a contra-expense (income) or expense respectively.

**Gain/loss = net sales proceeds (commission fee included) – cost basis**

e.g. investment sold at a gain

Items	Debit	Credit
Cash	xx + yy	
Investment in securities		xx
Gain on sale of investments		yy

Accounts receivable
<ul style="list-style-type: none"> <li>Relatively liquid assets, usually converting into cash within 30 to 60 days</li> <li>Receivables that are based on long-term instalment plans (e.g. 12, 24, 48 months) are still considered current assets as they are part of the company's normal operating cycle</li> <li><i>all</i> accounts receivable arising from <i>normal</i> sales activity are considered current assets even if their credit terms extend beyond a year</li> </ul>

Uncollectible accounts
It is inevitable that some accounts receivable <i>from sales</i> will not be collected. A limited amount of uncollectible accounts from sales is not only expected – it is evidence of a sound credit policy that is not overly cautious and losing potential sales opportunities by rejecting customers with acceptable credit risks.

#### Allowance for impairment

In measuring income, matching principle means revenue should be offset by expenses (including losses of receivables – which are impairment losses caused by selling goods on credit). This expense is estimated and charged to the allowance of impairment first, before being deducted from it as real uncollectible occur.

- No way in advance of identifying *which* accounts payable will prove uncollectible, so not possible to directly credit those accounts for an estimate of uncollectible impairment losses
- Practical solution: (create) credit an account “allowance for impairment” – a contra-asset
- Account must be adjusted monthly based on renewing estimates and current balance in allowance for impairment
- Estimate is reflected in financial statement to reflect a more accurate profit per the matching principle

Items	Debit	Credit
Impairment loss of receivable	xx	
Allowance for impairment		xx

$$\text{Estimated collectible amount} = \text{accounts receivable} - \text{allowance for impairment}$$

$$\text{Ending allowance for impairment} = \text{beginning} - \text{write-offs} + \text{uncollectibles expense}$$

#### Writing off a real uncollectible receivable

When account receivable is deemed uncollectible, it no longer qualifies as an asset. So the corresponding values should be 'deleted' from assets and allowance for impairment. Notice that estimated collectible amount (and thus profit) remains the same – because it was considered beforehand via estimates.

Items	Debit	Credit
Allowance for impairment	xx	
Accounts receivable		xx

#### Direct write-off method

Some companies do not use any valuation allowance for accounts receivable. These companies recognise no impairment loss of receivable until they are actually determined to be worthless – making no attempt to match revenue with the expense of uncollectible accounts.

- Receivables will be listed in assets at their gross amount with no valuation allowance used
- Acceptable if company makes most of its sales for cash and receivables are a small portion of their assets

#### Recovery of an account receivable previously written off

Asset is reinstated alongside allowance for impairment.

Items	Debit	Credit
Accounts receivable	xx	
Allowance for impairment		xx

### Monthly estimates of credit losses

Management should estimate the probably amount of uncollectible accounts monthly and adjust the allowance for impairment to this new estimate by debiting/crediting it.

#### Statement of financial position approach

1. Year-end Accounts Receivable is broken down into age classifications.

2. Each age grouping has a different likelihood of being uncollectible.

3. Compute a separate allowance for each age grouping.

EastCo, Inc.			
Schedule of Accounts Receivable by Age			
31 December 2013			
Days Past Due	Accounts Receivable Balance	Estimated Bad Debts Percent	Estimated Uncollectible Amount
Current	\$ 45,000	1%	\$ 450
1 - 30	15,000	3%	450
31 - 60	5,000	5%	250
Over 60	2,000	10%	200
	\$ 67,000		\$ 1,350

This approach is based on the idea that the longer an account is past due, the greater likelihood that it will not be collected in full. So, the credit manager does an estimate for each receivable age group on the basis of past experience and combines it to give a total estimate.

#### Income statement approach

- On the basis of past experience, the impairment loss is estimated as some percentage of net credit sales.
- Adjusting entry is made in the *full amount* of the estimated expense, without regard for the current balance in the allowance for impairment.

$$\text{Estimated uncollectible} = \text{net credit sales} \times \% \text{uncollectible}$$

#### Approaches compared

- Advancement of computer and software allows easier usage of statement of financial position approach
- Income statement approach may not meet the requirement of IFRS
- IFRS formally requires impairment loss to be determined by using the present value of estimated future cash flows
  - Be careful in applying the approach
  - Ensure that the percentage of credit loss can reflect the requirements of IFRS

Factoring accounts receivable and credit card sales
<p><u>Factoring</u></p> <p><i>Factoring</i> describes transactions in which a business sells its accounts receivables to a financial institution (a factor) for cash. This allows the company to obtain cash immediately (and transfer the risk).</p> <p><u>Credit card sales</u></p> <ul style="list-style-type: none"> <li>By making sales through credit card companies, merchants receive cash a lot more quickly, reducing impairment loss risks</li> <li>For bank credit cards (issued by bank) because the credit card drafts are acceptable for immediate deposit, these transactions are considered a cash sale less a fee</li> <li>Non-bank credit cards are not immediately acceptable by banks for deposit, so the credit card company periodically reimburses the merchant in cash for the receivables</li> </ul> <p><u>Factoring with and without recourse</u></p> <p>Recourse is the understanding between the merchant and factor that the merchant must buy back (ie. take responsibility for) receivables that the factor cannot collect payment on.</p> <p>With recourse, the risk lies with the merchant still – all they get is money more quickly, but the risk of uncollectible is still borne by them.</p>

Notes receivable and interest revenue

A note is an unconditional promise in writing to pay on demand or at a future date for a definite sum of money.

- Maker: person who signs the note and thereby promises to pay
- Payee: the person to whom payment is to be made

Accounting for notes receivable and interest revenue

**Interest = principal × interest rate × time (fractions of a year)**

e.g. accounting on date of maturity – ie. when interest is collected (even if only paid in part in cash) – removal of note (credit) and debit assets (cash or receivables) and credit revenue

Items	Debit	Credit
Cash	xx	
Notes receivable		xx
Interest receivable	xx	
Interest revenue		xx

Defaults

If the maker of a note defaults, an entry should be made to transfer the amount due from the notes receivable to an account receivable.

Items	Debit	Credit
Accounts receivable	xx	
Notes receivable		xx
Interest receivable		xx
Interest revenue		xx