



**LCCI**

International  
Qualifications from EDI

## **Level 3**

# **Award in Understanding Financial Statements**

Student Handbook

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# Introduction

## Welcome to the Student Handbook for 'Understanding Financial Statements Level 3'

This Student Handbook has been written specifically to help you in developing the understanding and skills you need to achieve the LCCI Level 3 Award in Understanding Financial Statements.

Financial Statements are an important tool in managing a business. When properly interpreted, they contribute to an understanding of the current financial position, performance and possibilities of a business. A good understanding of financial statements will help owners and managers to better monitor and control the operations of their business and make rational decisions for the future.

In addition, a good understanding of financial statements is useful for anyone thinking of investing in a business, investigating job opportunities or simply just managing their personal finances.

This Handbook has been prepared to help you develop a sound understanding of financial statements. The Handbook has six sections that map directly to the LCCI Level 3 Award in Understanding Financial Statements syllabus to ensure that you cover the relevant content for the exam. The topics are presented using examples and diagrams and the language used is simple and easy to read.

To help you make the best of your learning experience, the Handbook has been designed with the following features:

- Learning targets stated at the beginning of each section – these outline what you should learn by the end of the section. You can use these as a checklist to make sure that you have met all the assessment criteria
- Activities and exercises with solutions within sections - these help to reinforce your learning and give you the opportunity to apply your learning. Answers to activities are provided in the Appendix
- Visual examples to help you understand

Whether you attend classes or study on your own, this Handbook is an ideal learning resource.

## Section 1

# Purpose and Use of Financial Statements

### Learning Targets

At the end of this section you should be able to:

- Explain the meaning of the term 'financial statements'
- Explain why it is important for businesses to produce financial statements
- Describe how financial statements are used by each of the different user groups
- Describe the three main financial statements that are produced annually

## What are Financial Statements?

The **financial statements** (or financial reports) of a business are the formal records of its financial activities.

The three main financial statements produced by a business are:

- **The Trading, Profit and Loss Account** – This shows the financial results of a business over a period of time, e.g. a month or year, called the accounting period. In other words, it shows whether the business has made a profit or loss over a period time and how much. The Trading, Profit and Loss Account is also referred to as the Income Statement.
- **The Balance Sheet** – This is a statement of the financial position of the business at a particular point in time. It shows all the assets and liabilities of the business at that particular time and how they are financed. It essentially provides a ‘snapshot’ of the business’s financial health. The Balance Sheet is also referred to as the Statement of Financial Position.
- **The Cash Flow Statement** – This shows the business’s inflows and outflows of cash over a particular period of time.

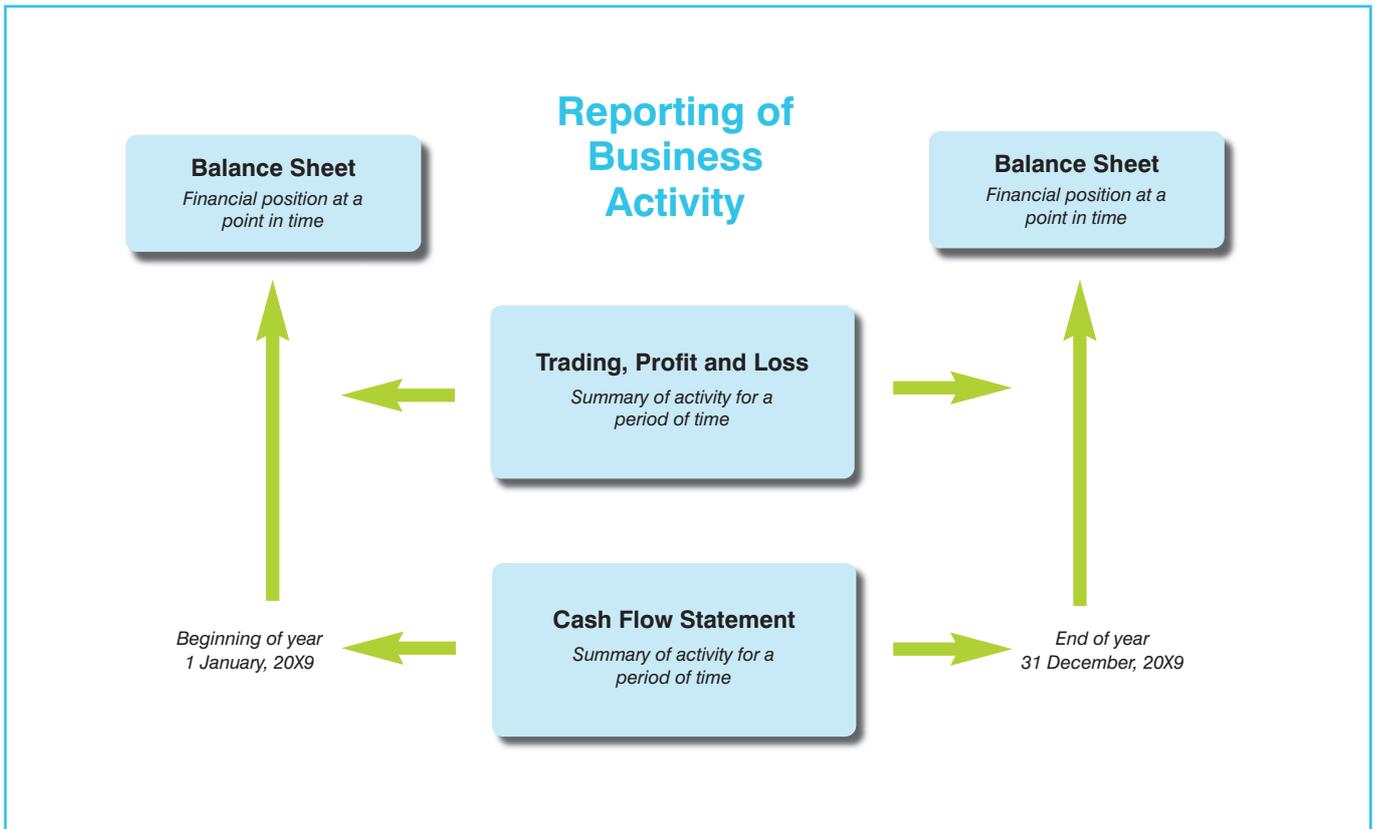
The financial statements for different businesses will not all look exactly the same. They can be significantly different because of the type of business that they are created for, however, the basic information presented is always the same. Some statements are very simple, while others can be more complex. For example, the financial statements of a sole trader business will look very different to those of a limited company. A sole trader’s financial statements will be very simple and straightforward while those for a limited company will be more detailed and complex due to its capital structure, formation and ownership. It is usual to see the financial statements of limited companies accompanied by additional information called “The notes to the accounts”, which expand upon the figures in the main financial statements.

## Why are financial statements important?

Financial statements are produced to provide information about the financial position and performance of a business, as well as the changes in the financial position between the beginning and the end of an accounting period.

While each statement has a definite purpose and is looked at separately in this course, in practice, they should be read and interpreted together to get a complete picture of a business’s financial situation. The relationship between the statements, in terms of purpose and timing, must always be kept in mind. This relationship is shown in the diagram on the next page.

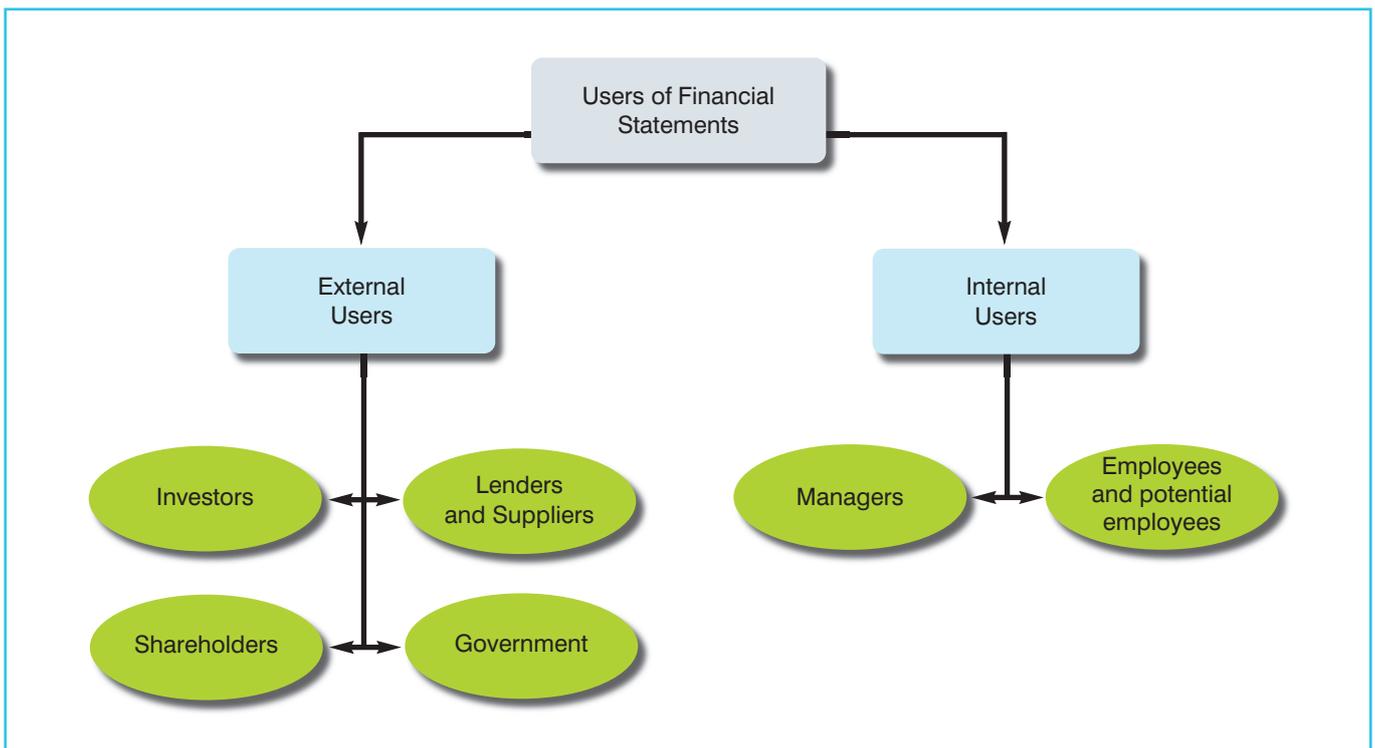
The Balance Sheet is like a ‘snapshot’ in that it represents the financial position of a business *at a particular moment in time*. These ‘snapshots’ can be compared to provide useful information on changes in financial position. On the other hand, the Trading, Profit and Loss Account and Cash Flow Statement present a summary of activities *over a period of time* (the accounting period). As the end date of the accounting period indicated in these statements is the specific date at which the Balance Sheet is prepared, it allows users to assess how the financial activities over the accounting period have affected the financial position of the business at the end of the accounting period.



## Main users of financial statements

Financial statements show how a business is performing financially and provide very useful information for people within or outside the business.

There are several groups of people who are the main users of financial statements – each group has a different reason for using them. The main groups are:



- **Potential investors** would use financial statements to help them decide whether to invest in a particular business and to compare a range of businesses to find the best investment.
- **Lenders and suppliers** to the business would use the financial statements to help them decide whether the business is able to meet its liabilities. A lender to the business needs financial information to help decide, firstly, whether to lend money to the business and if so, how much to lend. A supplier to the business needs financial information to help decide whether the business is able to pay for the goods or services it supplies.
- **Shareholders** in the business would use financial statements to assess how the business is performing. This allows the shareholders to monitor the performance and safety of their investment and to decide whether to keep the shares in the business, sell them or buy more shares.
- **The Government** would use financial statements to ensure that the business is complying with financial legislation e.g. that a business has accounted for the correct amount of tax.
- **Managers** of the business would use the information within the financial statements to make important decisions about the running of the business, e.g. whether the business has enough cash to buy a new machine. Financial statements will also help managers to assess the strengths and weaknesses of the business and allow them to plan ahead.
- **Employees and potential employees** would use financial statements to obtain information on the financial stability of a business. They need to know that the business will continue to trade and be able to pay salaries and wages in the future.

### Activity 1.1

Read and answer each of the following questions about financial statements.

1. Name the three main financial statements.
2. Which financial statement shows a business's financial position at a given date?
3. Is a Trading, Profit and Loss account prepared for a period of time or at a given date?
4. What information does the Cash Flow Statement provide that isn't given in the other two financial statements.

### Activity 1.2

Match each of the users of financial statements in the left hand column with their main reason for using them in the right hand column.

User	Reason for using
1. Potential Investors	A. To decide whether to sell goods to a business
2. Managers	B. To decide whether to buy shares in a business
3. Shareholders	C. To ensure a business is complying with legislation
4. Lenders	D. To make decisions about the running of a business
5. Employees	E. To monitor the return on an investment in a business
6. Government	F. To find information about the security of jobs within a business

## Section 2

# Accounting Concepts and Principles

### Learning Targets

At the end of this section you should be able to:

- Describe each of the main accounting concepts
- Explain how each of the main accounting concepts affects the preparation of the financial statements
- Distinguish between the terms 'capital expenditure' and 'revenue expenditure'

## Accounting Concepts

The financial statements of all businesses are prepared using agreed assumptions and principles that are known as the ‘**accounting concepts**’. These basic assumptions underlie the preparation of all financial statements and are intended mainly to ensure that the information which is produced presents a ‘true and fair’ view of the business activities.

The five main accounting concepts are:

Accounting concept	Description
Consistency	<p>This requires that a business uses the same accounting methods and procedures from one period to the next. This allows meaningful comparisons to be made across different time periods.</p> <p>A business may change its accounting policies if they are no longer appropriate for its circumstances, or if it would mean that the financial statements no longer gave a true picture of financial performance or position. Any changes made must be disclosed in the financial statements.</p>
Matching and Accruals	<p>These two concepts are closely related. The Matching concept requires that the costs incurred in a given period should be matched with the revenue earned to determine the profit or loss for the period.</p> <p>For the Matching concept to work the Accruals concept is necessary. It requires that costs and revenues are recognised in the accounts when incurred or earned – not when the cash is received or paid. The Accruals concept aims to provide a true and fair measurement of the transactions that occur in a given period.</p>
Prudence	<p>This requires that financial statements should be prepared on the basis that all anticipated liabilities are included and that profits should only be recognised once they are realised. In other words, businesses should never overstate their revenue or understate their expenses.</p>
Going Concern	<p>This concept requires that financial statements are prepared on the assumption that the business will continue to trade unless there are signs that this is not the case. The business is assumed to be a ‘going concern’ and so intends to use its resources for its operations; it does not expect to sell them.</p>

## How does each of the concepts affect the preparation of financial statements?

Accounting concept	Effect on Financial Statements
Consistency	<p>Items in the financial statements should be treated in the same way from one accounting period to the next. For example, the method used for depreciation of fixed assets should be the same from one period to the next.</p>
Matching and Accruals	<p>The financial statements for an accounting period should only include revenue and costs earned and incurred in that period. Care must be taken to ensure that all revenues and costs are included in the accounting year to which they relate, whether or not they have been received or paid.</p> <p>For example, if goods were sold and invoiced before the end of the accounting period 31 December 20X8, but the payment was received in February 20X9, the sales revenue should be recorded in the financial statements for 20X8 and not 20X9, as this was the period in which the revenue was earned.</p> <p>Similarly, if rent of £2000 for the last three months of the year to 31 December 20X8 was not paid until January 20X9, this rent amount should be recorded in the financial statements for 20X8, as this was the accounting period in which the expense was incurred. This is known as an accrual. On the other hand, if the business pays the rent for January 20X9 in the accounting period ending 31 December 20X8 (paying in advance), this amount should not be recorded in the financial statements for 20X8 as it relates to rent to be incurred in 20X9; not in 20X8. This is known as a prepayment. Like expenses, revenues may be accrued (as in the sales example above) or received in advance.</p>
Prudence	<p>When preparing financial statements, a degree of caution should be exercised when making estimates of uncertain items. The value of assets should not be overstated and liabilities and losses should not be understated e.g. debts that are unlikely to be collected should be written off as bad debts and provisions should be made for debtors who are unlikely to pay their invoices.</p>
Going concern	<p>When preparing financial statements, items should be recorded at the actual amounts at which they were bought and sold and not the market value. For example, machinery bought by a business is recorded at the price paid at the time of its purchase (amount on the invoice or receipt) and not the price it would be sold for if the business were to cease trading. Unlike a 'going concern' business, a bankrupt business would record its assets at market value – it has stopped operating and will be selling its possessions.</p>

### Activity 2.1

In each of the situations below, the business owner needs to decide how to account for the transaction. State which accounting concept is relevant for each and explain how each transaction should be treated.

- (a) Brianna, the owner of an office supplies business, is preparing the financial statements for the year ended 31 December 20X8. The most recent electricity bill paid by the business is dated 31 October 20X8. Rent of £80,000 has been paid for the 6 months ending 30 June 20X9.
- (b) Kevin has started a bicycle repair business and has bought premises from a good friend at a reduced price of £10,000. If he had bought the premises at its full market value, it would cost him £16,000.
- (c) Samara operates a craft supplies business. Her accounting records show that a customer has owed her £15,000 for the last three years. She has written to the customer several times to request payment but the letters have been returned as undeliverable.
- (d) Dane, who owns a stationery business, received a sales order of £2,400 in November 20X8 (his year end is 31 December). This order is to be fulfilled and delivered in February 20X9, in the following accounting period.
- (e) A business with a year end of 30 September sold goods to Alexander on 30 September 20X9. Alexander settled the invoice in November 20X9.

### Difference between Capital Expenditure and Revenue Expenditure

When a business spends money, it receives some value in the form of goods or services. The value received from those goods or services purchased will be of benefit to the business for different lengths of time depending on their nature.

Spending that is expected to provide benefit over a period of time longer than the current accounting period is classified as **capital expenditure**.

**Capital expenditure** is money spent on the purchase of fixed assets (e.g. new machinery, land and buildings, motor vehicles) or expenditure to increase the value of existing fixed assets. Capital expenditure will increase the fixed assets owned by the business and will provide benefit to the business over more than one accounting period.

Spending that is expected to provide benefit within the current accounting period is classified as **revenue expenditure**.

**Revenue expenditure** is money spent on purchasing items which are used (directly or indirectly) to produce revenue in the accounting period e.g. repairs to machinery, advertising or wages and salaries. It is the cost incurred in the day-to-day running of the business and will only be of benefit to the business in that accounting period.

It is important to make a distinction between capital and revenue expenditure because they are treated differently in the financial statements and have different impacts on financial information. Capital expenditure affects the measurement of fixed assets and is shown in the Balance Sheet of the business. On the other hand, revenue expenditure affects the measurement of profit or loss and is charged to the Trading, Profit and Loss Account in the year in which it is incurred, as it relates to the running of the business in that year.

If expenditure isn't accounted for properly, the financial statements are likely to be misleading as the information presented will be incorrect. For example, if revenue expenditure was incorrectly treated as capital expenditure, this would result in an overstatement of profit in the Trading, Profit and Loss Account and an overstatement of fixed assets in the Balance Sheet. This can pose a serious problem as an overstatement of profit might cause the owner to withdraw too much out of the business or have to pay more tax. Bearing in mind the prudence concept, it would be far less serious if the profit was understated, because it is likely that more cash would then have been retained in the business.

It is important for users of financial statements to understand the concepts and principles used in the preparation of financial statements in order to appropriately interpret the information presented. While accountants would have adopted these general concepts and principles in preparing the financial statements, the detailed application of these is subject to some amount of individual interpretation and so in order to understand what they have done it is necessary to know what rules they have adopted.

### Activity 2.2

Jin runs a business selling watches and incurred various items of expenditure during the year ended 30 June 20X9. For each of the items of expenditure below he needs to decide whether it is capital expenditure or revenue expenditure.

Write 'C' (for capital expenditure) or 'R' (for revenue expenditure) on the line next to each one.

Purchased a building	_____
Paid insurance premium for delivery vehicle	_____
Paid rent and rates for the new building	_____
Bought a car for use in the business	_____
Bought petrol for the delivery vehicle	_____
Paid wages of shop assistant	_____
Paid for office extension	_____
Bought new office furniture	_____
Paid for repairs to the building	_____
Bought watches for resale	_____

## Section 3

# Interpreting the Trading, Profit and Loss Account

### Learning Targets

At the end of this section you should be able to:

- Outline the basic equation that the preparation of the Trading, Profit and Loss Account is based on
- Describe the main components of a Trading, Profit and Loss Account
- Explain how the components relate to each other in the preparation of a Trading, Profit and Loss Account
- Calculate gross profit/loss and net profit/loss from given figures
- Explain how the information provided by a Trading Account is different to that provided by a Profit and Loss Account
- Distinguish between expenses and revenues and how they are treated
- Explain why depreciation is considered a non cash expense

## What is the Trading, Profit and Loss Account?

The Trading, Profit and Loss Account shows whether the business has made a profit over the accounting period and how much. It records the revenue earned by the business, the expenses incurred in earning the revenue and running the business and the resulting profit or loss.

The Trading, Profit and Loss Account is prepared on the basis of the following equation:

$$\text{Profit (Loss)} = \text{total revenues} - \text{total costs}$$

If the total revenue of a business is greater than the total costs then the business has made a profit. If the total revenue is less than the total costs the business has made a loss.

## The format of the Trading, Profit and Loss Account

The Trading, Profit and Loss Account is split into two sections:

1. **The Trading Account** – this section calculates the **gross profit or gross loss** made on the buying and selling (trading) of goods. This figure is calculated before the other expenses of running the business are deducted.

Not all businesses will produce a Trading Account. Many businesses will not be selling physical goods but will provide a service instead, e.g. a hair salon. These businesses will only prepare a Profit and Loss Account. Other businesses will make the goods they sell instead of buying them and so will also need to produce a Manufacturing Account.

2. **The Profit and Loss Account** – this section calculates the **net profit or net loss** of the business once all operating expenses have been deducted from the total revenues (gross profit plus other revenue). This is the overall or final profit of the business.

An example of a Trading, Profit and Loss Account for a sole trader business is shown on the next page.

**EXAMPLE 1**

**R. Appleby**

**Trading, Profit and Loss Account for the year ending 31 December 20X9**

The heading should show the name of the business or sole trader, the statement title and the specific accounting period.

	£	£
Sales		376,500
<i>Less: Cost of goods sold</i>		
Opening stock	54,250	
Add Purchases	174,000	
<i>Less Closing stock</i>	<u>(47,750)</u>	
		<u>(180,500)</u>
<b>Gross profit</b>		<b>196,000</b>
Rent receivable		8,000
<i>Less: Expenses</i>		
Wages and salaries	85,400	
Insurance	1,200	
Advertising	15,250	
Rent and rates	26,000	
Depreciation	8,725	
Bad debts	<u>655</u>	
		<u>(137,230)</u>
<b>Net profit</b>		<b><u>66,770</u></b>

This is the Trading Account. It shows the value of sales, the cost of making those sales and the profit resulting from trading, i.e Gross profit

This is the Profit and Loss Account. It deducts the operating expenses incurred by the business from the total revenues for the period to calculate the Net profit.

**Components of the Trading Account**

As seen in R. Appleby’s Trading, Profit and Loss Account (Example 1), the main components (i.e items) of the trading account section are:

- **Sales** – the revenue earned in the accounting period from the sale of those goods that the business trades or deals. All sales to customers are included, whether or not they have been paid for.
- **Purchases** – the cost of buying goods for resale in the accounting period. All purchases are included, whether or not they have been paid for.
- **Opening stock** – the value of goods which the business has in stock at the start of the accounting period. This is the value closing stock from the previous accounting period.
- **Closing stock** – the value of goods which the business has in stock at the end of the accounting period. This is the value of the opening stock for the next accounting period.
- **Cost of Goods Sold** – the direct cost associated with the sales made in the accounting period. In other words, it is the cost of purchasing those goods that were actually sold. The figure for cost of goods sold is calculated using the components listed above. As shown in R. Appleby’s Trading Account, the cost of goods sold is calculated by the following equation:

**Cost of goods sold = Opening stock + Purchases – Closing stock**

$$\text{Cost of goods sold} = 54,250 + 174,000 - 47,750 = 180,500$$

The opening stock and purchases are added together to give the total value of goods available for sale in the accounting period. The closing stock figure is then subtracted as this amount was unsold at the end of the period and so is not a part of the cost of goods sold. The resulting figure (£180,500) is the cost of goods sold, i.e. the total cost of purchasing the goods that have been sold. Cost of goods sold is also referred to as 'cost of sales'.

Where the value of sales is greater than the value of cost of goods sold then this results in a **Gross Profit**. On the other hand, if the value of sales is less than the value of cost of goods sold, then this results in a **Gross Loss**.

**Gross Profit = Sales > Cost of goods sold**

**Gross Loss = Sales < Cost of goods sold**

R. Appleby's Trading Account shows a gross profit of £196,000 as the value of sales (£376,500) exceeded the value of cost of goods sold (£180,500). While it is unlikely that a business will make a gross loss it is not impossible.

The Trading Account in Example 1 shows the main components but there may be other items included. The purchases cost in the example on the previous page is given as a single figure, however, in some cases there will be other costs associated with purchases such as carriage cost and insurance. In those cases, the associated costs would be added to the purchases figure to calculate the total purchase costs. This figure would then be used in the same way as above to calculate cost of goods sold. A business may also return to suppliers goods previously purchased (**returns outwards**) – this would need to be subtracted from the purchases figure before the cost of goods sold is calculated. Similarly, customers may return goods to the business (**returns inwards**) – this would be subtracted from the sales figure before the gross profit is calculated.

## Components of the Profit and Loss Account

Once the gross profit is calculated it is transferred to the Profit and Loss Account where the net profit or loss is calculated. The calculation of net profit takes into consideration the operating expenses as well as the other revenues earned by the business.

- **Operating expenses** – these are the costs of running the business that are not directly associated with the selling of goods. All expenses incurred in the period must be included; this means that adjustments would have to be made for any accrual (for unpaid items) or prepayment (items paid in advance), as mentioned in Section 2.

In Example 1 (page 14), the business paid wages and salaries to its staff; it insured the assets it needs to run the business and advertised in order to increase the sales revenue. It also paid rent and rates on the building it occupies and had to write off the debt owed by a customer who wasn't able to pay his invoice (bad debts). The total operating expenses for the period amounted to £137,230. The higher the level of expenses the lower the net profit.

### 3: Interpreting the Trading, Profit and Loss Account

Different business will have different expenses; the actual expenses incurred will depend on the nature of the business, examples include:

Expenses	
Rent payable – for the premises occupied by the business	Repairs and maintenance – to assets owned by the business and used in the business
Wages and salaries – paid to the staff who work for the business	Heat and light – for the premises occupied by the business
Insurance payable – for the assets owned by the business	Depreciation – adjustment for the loss in value of fixed assets
Bad Debts – amounts written off for debts that are unlikely to be collected	Motor vehicle costs – fuel, repairs and servicing of all the vehicles owned and used by the business

- **Other revenues** – This includes revenue that is earned from sources other than the sale of goods. Similarly to expenses, adjustments are made to ensure that only revenues earned in the accounting period are included, i.e. for accrued income or income received in advance. Examples of revenues include:

Revenues	
<b>Rent receivable</b> – income received from the letting of property owned	<b>Interest receivable</b> – income received from cash investments
<b>Commission receivable</b> – income received by a business which acts as an agent	

To calculate the net profit or loss, any other revenue earned by the business in the accounting period is added to the gross profit or loss and then the total operating expenses for the period is subtracted.

If the gross profit or loss plus any other revenue is greater than the total operating expenses in the period, the result is a **net profit**. If the total operating expenses are greater than the gross profit or loss, plus any other revenue, the result is a **net loss**.

$$\text{Net profit} = (\text{Gross profit/loss} + \text{other revenue}) > \text{Operating expenses}$$

$$\text{Net Loss} = (\text{Gross profit/loss} + \text{other revenue}) < \text{Operating expenses}$$

In Example 1 (page 14), R Appleby made a net profit of £66,770 – the rent receivable of £8,000 was added to the gross profit of £196,000. The total operating expenses of £137,230 was then subtracted to calculate the net profit. The brackets around the total operating expenses indicate that this figure is being subtracted. The net profit or net loss calculated is then shown in the capital section of the business's Balance Sheet (see page 21).

## Depreciation as a non-cash expense

One of the operating expenses in Example 1 (page 14) is **depreciation**. Depreciation is an estimate of the fall in value of fixed assets (machinery, vehicles, buildings, etc.) over a period of time. A business which owns fixed assets that will be used for more than one year must make a charge to the Profit and Loss Account each year to reflect the cost of the using the asset during that year. Depreciation does not involve the business spending any cash during the accounting period (except in the year in which the asset is purchased). Unlike wages or rent, no cash is paid during the financial years of ownership; instead an accounting adjustment is made in the accounts to show the expense incurred from the use of the asset. Therefore, depreciation is considered as a non-cash expense.

The two main methods of calculating depreciation are the Straight-line Method and the Reducing Balance Method.

In summary, the Trading, Profit and Loss Account answers the question: “How much profit has the business made?” However, it is important to understand that the profit calculated is an ‘accounting profit’ and it will not be the same as the amount of cash the business has generated in the accounting period. This is due to the concepts and principles (e.g accruals, revenue and capital expenditure, etc.) adopted in its preparation, which aims to ensure that the Trading, Profit and Loss Account reflects the performance of the business in a way that is consistent and comparable from one period to the next. This performance is not affected by whether customers have paid their bills or whether suppliers have been paid for goods and services provided.

### Activity 3.1

For each of the businesses below calculate the gross profit/loss and net profit/loss for the accounting period. Show a loss in brackets.

	Business 1	Business 2	Business 3	Business 4
Sales	375,250	375,250	375,250	375,250
Cost of goods sold	253,750	324,675	394,300	354,200
Gross profit/loss				
Other revenue	7,500	1,250	6,600	5,230
Operating expenses	72,400	53,750	23,800	31,600
Net profit/loss				

**Activity 3.2**

Use the information below to calculate the cost of goods sold, the gross profit and the net profit of A. Gianna’s business. Write your answers in the space provided.

Sales	£750,000	
Purchases	£245,000	
Interest receivable	£ 15,340	
Opening stock	£73,000	
Closing stock	£65,000	
Administration expenses	£127,500	
Depreciation	£85,500	
Wages and salaries	£136,400	
Cost of goods sold		_____
Gross profit		_____
Net profit		_____

**Activity 3.3**

Look at the Trading, Profit and Loss Account for K Pawlak below and then answer the questions that follow.

<b>K Pawlak – Trading, Profit &amp; Loss Account for the year ended 30 September 20X7</b>			
	£	£	£
<b>Sales</b>			107,370
<b>less Returns inwards</b>			<u>165</u>
			107,205
<i>less Cost of goods sold:</i>			
Opening stock		2,306	
<i>add Purchases</i>	75,390		
<i>less Returns outwards</i>	<u>1,924</u>	<u>73,466</u>	
		75,772	
<i>less Closing stock</i>		<u>6,910</u>	
			<u>68,862</u>
<b>Gross profit</b>			<b>38,343</b>
<i>add Discount received</i>			<u>790</u>
			39,133
<i>less Expenses:</i>			
Wages and salaries		17,440	
Insurance		1,772	
Advertising		500	
Motor vehicle running costs		2,210	
Accountancy fees		650	
Discounts allowed		1,830	
Bad debts		860	
Depreciation:			
Fixtures and fittings	1,664		
Motor vehicles	<u>4,500</u>	<u>6,164</u>	
			<u>31,426</u>
<b>Net profit</b>			<b><u>7,707</u></b>

QUESTIONS

1. What is the start date of K Pawlak's accounting period? \_\_\_\_\_
2. What is the cost of purchasing the goods that were sold in the period? \_\_\_\_\_
3. What is the value of goods that were returned by customers? \_\_\_\_\_
4. What is the value of goods that were returned to suppliers? \_\_\_\_\_
5. How much profit was made from the trading of goods? \_\_\_\_\_
6. What is the overall (final) profit made by the business? \_\_\_\_\_
7. What is the cost incurred by the business as a result of non-paying customers? \_\_\_\_\_
8. Other than sales, what other revenue did the business earn in the accounting period?  
\_\_\_\_\_
9. Why is it necessary to account for depreciation? \_\_\_\_\_  
\_\_\_\_\_
10. If the business had not earned any revenue other than sales, what would the net profit have been?  
\_\_\_\_\_

## Section 4

# Interpreting the Balance Sheet

### Learning Targets

At the end of this section you should be able to:

- Define the terms assets, liabilities and capital/owners' equity
- Distinguish between fixed assets and current assets
- Explain the way in which assets are presented on the Balance Sheet
- Distinguish between current liabilities and long term liabilities
- State the accounting equation
- Explain how the accounting equation relates to the preparation of the Balance Sheet
- Calculate working capital
- Explain the importance of having positive working capital

A **Balance Sheet** gives a 'snapshot' of a business's financial position at a particular time. It is usually prepared at the end of a month or year, which is called the accounting period.

The information contained in the Balance Sheet shows the business's ability to meet current and future debts with current resources, how much is owed and how much is owned by the business. It lists the business's different assets and how they have been funded.

An example of a sole trader's Balance Sheet is shown below. This Balance Sheet for R Appleby was prepared at the end of the accounting period to which the Trading, Profit and Loss Account in Example 1 (page 14) relates.

**EXAMPLE 2**

**R. Appleby**  
**Balance Sheet at 31 December 20X9**

	Cost	Accumulated Depreciation	Net Book Value
	£	£	£
<b>Fixed Assets</b>			
Land and Buildings	125,000	–	125,000
Fixtures and Fittings	25,000	2,500	22,500
Motor Vehicles	<u>15,000</u>	<u>7,500</u>	<u>7,500</u>
	165,000	10,000	155,000
<b>Current Assets</b>			
Stock		15,500	
Debtors		62,300	
Bank and cash in hand		<u>12,100</u>	
		<u>89,900</u>	
<b>Creditors falling due within one year</b>			
Bank loans and overdraft		13,700	
Trade creditors		54,800	
Accruals		<u>6,100</u>	
		<u>74,600</u>	
<b>Net current assets</b>			<u>15,300</u>
<b>Total assets less current liabilities</b>			170,300
<b>Long term liabilities</b>			
Bank loan			<u>50,000</u>
<b>Net Assets</b>			<u>120,300</u>
<b>Financed by:</b>			
Capital			53,530
Profit and Loss Account*			<u>66,770</u>

Total assets  
minus total  
liabilities

120,300

Closing capital;  
increase in  
capital as a  
result of profit

120,300

\* Net profit calculated in the Profit and Loss Account in Example 1 (page 14)

## Definition of key Balance Sheet terms

<b>Assets</b>	Resources owned by the business; things which belong to the business and have a value. Examples include, motor vehicles, stock, debtors, buildings.
<b>Liabilities</b>	Debts of the business; amounts owed to another person or business. Examples include loans, creditors, bank overdraft.
<b>Capital / owner's equity</b>	Cash or other assets introduced into the business by the owner(s).

## The accounting equation and the Balance Sheet

All bookkeeping and accounting is based on the accounting equation, which shows the relationship between assets, liabilities and capital. The equation can be stated in three ways:

$$\text{Assets} = \text{Capital} + \text{Liabilities}$$

or

$$\text{Capital} = \text{Assets} - \text{Liabilities}$$

or

$$\text{Liabilities} = \text{Assets} - \text{Capital}$$

The two sides of the equation will always be equal as the value of the assets of the business will always be the same as the value of the resources (liabilities and capital) that were used to provide them.

A Balance Sheet always reflects the accounting equation as it shows the assets, liabilities and capital at any point in time and shows that they are equal. Like the accounting equation, it shows that a business's total amount of assets equals the total amount of liabilities plus owner's equity. Every transaction of the business will affect two items in the equation and the balance sheet will always balance.

The expression of the accounting equation can be seen in R. Appleby's Balance Sheet in Example 2 (page 21). The top section of the Balance Sheet shows the difference between total assets and total liabilities; this is the net assets figure of £120,300.

The lower section of the Balance Sheet shows the addition of the capital (or owner's equity for a sole trader) and the profit made in the accounting period. As the net assets figure (£120,300) is equal to the closing capital figure (£120,300), this shows the balancing of the Balance Sheet and the expression of the accounting equation: capital = assets – liabilities.

## Difference between fixed assets and current assets

As can be seen in the Balance Sheet (page 21) there are two types of assets:

1. **Fixed assets** – Assets which are to be used in the business and were not bought primarily for the purposes of resale. These assets will have a relatively long life in the business. The assets owned by a business will depend on the nature of that business but common examples include:

Fixed assets
Land and buildings
Fixtures and fittings
Plant and Machinery
Motor Vehicles

2. **Current assets** – Assets that are used in the business's trade and are expected to have a short life within the business (less than one year). These assets can be changed into cash fairly quickly and will have frequent changes in value.

Current assets	Meanings
<b>Stock</b>	This is the value of closing stock; it is the figure that also appears in the Trading Account.
<b>Debtors</b>	Amounts owed by credit customers. This would be the amount after any provision for doubtful debts has been subtracted.
<b>Cash at bank</b>	Balance on the business bank account; amount of money the business has in the bank. (If there is an overdraft on the bank account then it is no longer an asset but a liability.)
<b>Cash in hand</b>	Amount of money held in the office; for example petty cash.
<b>Prepayments</b>	Amounts paid by the business in advance of the accounting period to which they relate.

## Presentation of assets on the Balance Sheet

The order of the presentation of assets on the Balance Sheet is consistent in all financial statements:

- Fixed assets are presented in **descending order of permanence**; i.e the ones which the business will keep longest are listed first going down to those it will keep for the shortest time (see Example 2,

page 21). Fixed assets are shown at their original cost price or valuation with the total depreciation charges to date deducted to show the **net book value** of the assets. In Example 2, the cost of motor vehicles is £15,000; the accumulated depreciation charge to date of £7,500 is then subtracted to give a net book value of £7,500. This is necessary to reflect the fall in the value of the fixed assets over the time that they are used by the business and not to overstate the value of assets (prudence concept).

- Current assets are presented in **increasing order of liquidity** (i.e. how quickly they can be converted into cash) starting with the assets that will take longest to convert to cash and going down to cash itself (see the order in Example 2).

## Presentation of liabilities on the Balance Sheet

Liabilities are categorised by the length of time in which they will be repaid.

The type of liabilities a business has will depend on the nature of the business as well as its legal

<b>Current liabilities (Amounts falling due within one year)</b>	Debts which the business has to repay within one year following the end of the accounting period. Examples include creditors (amounts owed to suppliers), loans, bank overdrafts, accruals (amounts still owing at the end of the financial year).
<b>Long term liabilities</b>	Debts which the business has to repay in more than one year following the end of the accounting period. For example, a bank loan repayable in 5 years' time.

structure.

The Trading, Profit and Loss Account and Balance Sheet for R Appleby shown in Sections 3 and 4 are for a sole trader. Similar statements for partnerships and limited companies will show additional items and may use different terms based on the nature and legal structure of the business.

## Working Capital

Working capital is a very important concept as it shows the amount of resources a business has in a form that can easily be converted into cash. The working capital of a business is defined as the *excess of current assets over current liabilities*, it is also known as “net current assets”. In Example 2, the total current liabilities of £74,600 are subtracted from the total current assets of £89,900 to give working capital / net current assets of £15,300.

### The importance of positive working capital

It is important for a business to have a positive working capital (i.e. current assets greater than current liabilities) so that it can meet its liabilities when they become due. If current liabilities are greater than current assets, the business may have difficulties in financing its day-to-day operations. Positive working capital enables the business to pay day-to-day expenses like wages, salaries, overheads and other operating expenses. Sufficient working capital is particularly important to ensure that the business can meet any unexpected liabilities; this helps to maintain the business's reputation and save it from having to resort to very expensive loans.

**Activity 4.1**

Fill in the blanks in the following paragraphs:

The Balance Sheet of a business shows its \_\_\_\_\_ position at a point in time. It shows the items owned by the business, called \_\_\_\_\_, the amounts it owes to third parties, called \_\_\_\_\_ and the money invested by the owners of the business, called the \_\_\_\_\_.

There are two types of assets, \_\_\_\_\_ which are those that are owned and used to run the business and \_\_\_\_\_ which are owned and used in the trade of the business.

There are two types of liabilities, \_\_\_\_\_ which must be repaid within one year following the end of the accounting period and \_\_\_\_\_ which must be repaid in more than one year after the end of the accounting period.

**Activity 4.2**

Prepare the Balance Sheet for S. Tiwary from the following year end balances making sure that the assets are presented in the correct order and showing a total for working capital. The Balance Sheet date is 31 March 20X7.

	£
Cash in hand	2,050
Debtors	27,150
Fixtures and fittings	25,750
Land and buildings	350,000
Motor vehicles	17,250
Profit and loss account	119,225
Capital	325,000
Stock	46,400
Trade creditors	24,375

**Activity 4.3**

Stella Lee runs Oriental Toy Shop. She is not very good at accounting and so has problems in preparing her Balance Sheet. She is unsure about six items and cannot decide whether they should be included in the Balance Sheet and if they should, under which section they should appear.

Explain to Stella Lee, giving reasons, whether each of the items should appear on the Balance Sheet and if so, under which section/sub-heading.

1. Cost of extending shop premises
2. Bad Debts charge for the year
3. Rent for the next accounting period paid in advance
4. Lighting and heating expenses owing at the end of the accounting period
5. Stock of toys for resale
6. Depreciation for the current accounting period

## Section 5

# Interpreting the Cash Flow Statement

### Learning Targets

At the end of this section you should be able to:

- Explain how the principle of preparing a Cash Flow Statement is different from that of a Trading, Profit and Loss Account and Balance Sheet
- Describe the underlying equation used in preparing a Cash Flow Statement
- Describe the main sections of a Cash Flow Statement based on FRS1
- Distinguish between the “direct method” and the “indirect method” of calculating Cash Flow from Operating Activities
- Explain how the information provided by the Cash Flow Statement is useful to businesses and users of accounts

A **Cash Flow Statement** shows a business's cash inflows and outflows over a period of time. It shows where the business's cash came from, how it used the cash and whether it has enough cash to repay loans and continue to operate. It shows the relationship between the profit made by a business in an accounting period and the cash generated or used during the same accounting period.

The Cash Flow Statement complements the Trading, Profit and Loss Account and Balance Sheet. The Profit and Loss Account is not prepared on a cash basis and the Balance Sheet only shows the cash position at the Balance Sheet date (the last day of the accounting period). No information is given that allows users to trace the sources of cash and how it is spent. This makes it difficult to monitor the business's cash position and to take necessary actions if it seems to be running short of cash.

An example of a Cash Flow Statement:

### EXAMPLE 3

#### Millennium Cash Flow Statement for the Year ended 31 December 20X1

	£	£
<b>Net cash inflow from operating activities</b>		112,500
<b>Returns on investments and servicing of finance</b>		
Debenture interest		(5,000)
<b>Taxation</b>		(35 000)
<b>Capital expenditure</b>		
Sale of fixtures	20,000	
Purchase of land & buildings	<u>(200,000)</u>	
<b>Net cash outflow from capital expenditure</b>		(180,000)
<b>Equity dividends paid</b>		<u>(29,500)</u>
<b>Net cash outflow before financing</b>		(137,000)
<b>Financing</b>		
Issue of ordinary shares		<u>100,000</u>
<b>Net decrease in Cash</b>		<u>(37,000)</u>

The brackets indicate that there was a net decrease in cash.

## Format of the Cash Flow Statement

Cash Flow Statements are prepared using the format recommended by FRS 1 (Revised), which is an accounting standard issued by the Accounting Standards Board. FRS 1 requires the Cash Flow Statement to be set out under eight main headings, as outlined on the next page.

Headings	What is included
<b>1. Net cash inflow from operating activities</b>	Cash generated from the trading operations of the business. Can be calculated using either the <b>Direct</b> or <b>Indirect</b> Method ( <i>see next page</i> )
<b>2. Returns on investments and servicing of finance</b>	Interest and non equity dividends paid to providers of finance (lenders and preference shareholders) and interest and dividends received on investments held by the business
<b>3. Taxation</b>	Tax paid on profits made by the business
<b>4. Capital expenditure and financial investments</b>	Payments and receipts from the purchase and sale of fixed assets and financial investments, e.g. loans to other businesses
<b>5. Acquisitions and disposals</b>	Sales and purchases of other businesses or of investments in them
<b>6. Equity dividends paid</b>	Dividends paid to ordinary shareholders
<b>7. Management of liquid resources</b>	Purchases and sales of current asset investments, e.g. treasury bills
<b>8. Financing</b>	Receipts and payments relating to share issues and redemptions, debentures, loans and other long-term borrowings

The information given in the Cash Flow Statement must be given in the order listed above and headings are not included if no cash transactions of that type have taken place either in the current period or in the previous period. Additionally, the heading 'capital expenditure' may be used if there are no cash flows relating to financial investments and headings 7 and 8 may be combined under one heading.

The Cash Flow Statement for Millennium Ltd. (Example 3) on page 27, shows that the business had a decrease in cash of £37,000 during the year ended 31 December 20X1. Its main sources of cash were operating activities, sale of fixed assets and the issue of ordinary shares. It used the cash to pay debenture interest, taxation, dividends and to purchase fixed assets. As there were no cash flows relating to 'acquisitions and disposals' or 'management of liquid resources', these sections are not required. If Millennium Ltd. continues to use up cash in future accounting periods there might be concerns about the sustainability of the business.

As can be seen in Example 3, the preparation of the Cash Flow Statement is based on the following equation:

**Change in cash and cash equivalents = total cash generated by/used for  
operating activities + investing activities + financing activities**

## Calculating Cash Flow from Operating Activities

There are two methods of calculating the cash flow from operating activities.

The most widely used method is the **indirect method** in which the profit from the Profit and Loss Account is converted to operating cash flow by making adjustments to remove non-cash items. These include depreciation, profits or losses on the sale of fixed assets and changes in non-cash current assets and liabilities (e.g. stock, debtors and creditors). This method is used by many businesses as it links the Cash Flow Statement directly with the Trading, Profit and Loss Account and the Balance Sheet.

The **direct method** reports cash received from operating activities and the cash paid out to perform those activities. This information may be obtained from the Cash Book.

## The difference between the Cash Flow Statement and the Trading and Profit and Loss Account and Balance Sheet

The Trading, Profit and Loss Account and the Balance Sheet of a business are both prepared using the **accruals basis** of accounting. This means that revenues are recorded when they are earned and expenses are recorded when they are incurred, whether or not they have been received or paid. On the other hand, the Cash Flow Statement uses the **cash basis** of accounting in which only transactions involving cash moving in and out of the business are included.

This difference in preparation highlights the **difference between profit and cash**. The profit made in a particular accounting period will not necessarily be reflected by an equivalent increase in the business's cash balances. The three main reasons for this are:

1. Purchases and sales are often made on credit. There will usually be a delay between goods or services being provided to a business and the payment for those goods or services (accruals) and some services may be paid for in advance (prepayment). Sales are often made on credit and paid for after the goods or services have been delivered.
2. A number of items included in the Trading, Profit and Loss Account do not affect the cash position, e.g. depreciation (this is a non-cash expense, see page 17), bad debts charges and changes in the provision for doubtful debts.
3. Some transactions that involve the expenditure or receipt of cash, e.g. purchase or sale of fixed assets (capital expenditure or receipts), are recorded in the Balance Sheet rather than the Profit and Loss Account.

For these reasons it is unwise to assume that if a business is making a profit it will not have any cash problems.

## How is the information provided by a Cash Flow Statement used?

The Cash Flow Statement provides information on the liquidity and solvency of a business. This is important for the managers and owners of the business and also for creditors, lenders, employees and investors.

The regular monitoring of cash flow is a vital task for managers if they are to control the business's cash position to ensure that it remains a going concern. The Cash Flow Statement will help the manager to identify early when the business might be short of cash, which then allows for actions to be taken before the situation becomes critical. It can also be used help with budgeting.

For investors, the cash flow reflects a business's financial health, showing how much cash is available for business operations. If a business is making a profit but not generating cash in an accounting period, the Cash Flow Statement will show the reasons for this. The business may have been very successful and needed to buy a new factory. The cost of the factory may be higher than the amount of profit made in one accounting period but will enable the business to make higher profits and generate more cash in the future. Investors can also use the Cash Flow Statement to compare the cash generating abilities of two businesses.

### Activity 5.1

Fill in the blanks in the paragraphs below:

The Trading and Profit and Loss Account is prepared using the \_\_\_\_\_ method of accounting, a Cash Flow Statement in prepared using the \_\_\_\_\_ basis of accounting.

The equation underlying the Cash Flow Statement shows that the change in \_\_\_\_\_ and \_\_\_\_\_ equals the total of cash generated by/used for \_\_\_\_\_ plus \_\_\_\_\_ plus \_\_\_\_\_.

There are two methods of calculating the cash flow from operating activities. The most widely used is called the \_\_\_\_\_ method, the other method is called the \_\_\_\_\_ method.

### Activity 5.2

Read and answer each of the following questions below.

1. Why is a Cash Flow Statement needed?
2. Give 3 reasons why making an accounting profit for a period will not necessarily result in an improvement in a business's cash position.
3. How does depreciation affect the cash and bank balances?
4. Outline the recommended format for a Cash Flow Statement.
5. How can the information from the Cash Flow Statement be used.

## Section 6

# Calculating and Interpreting Profitability, Liquidity and Efficiency Ratios

### Learning Targets

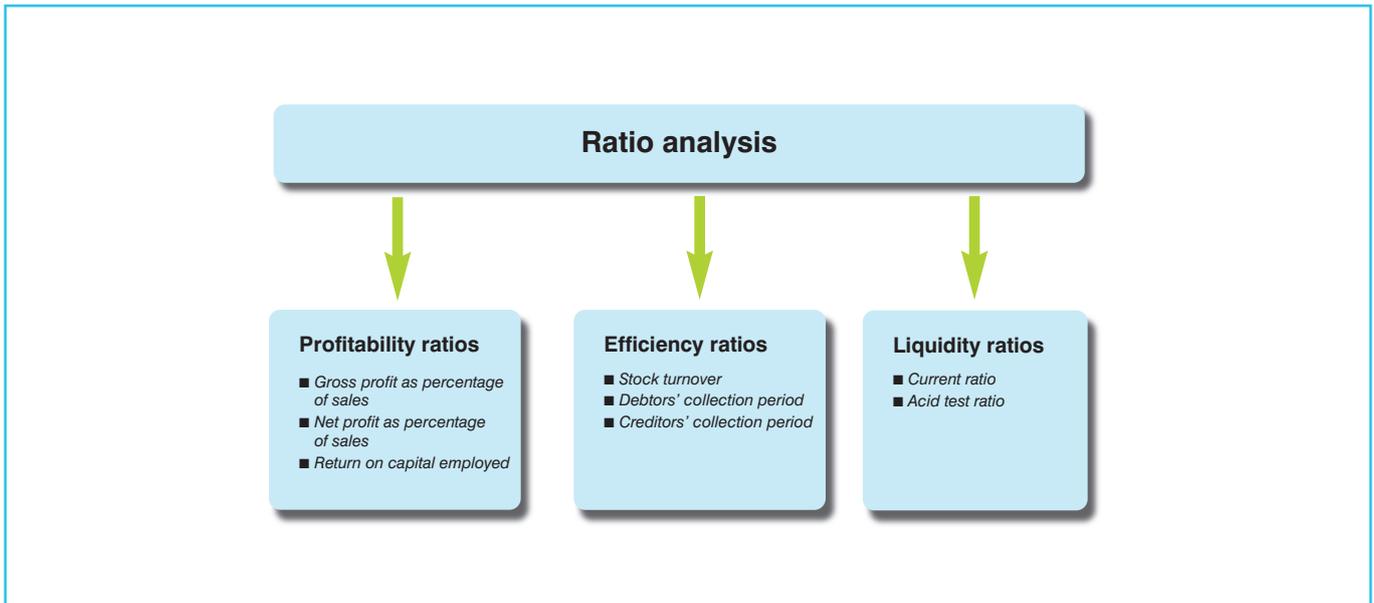
At the end of this section you should be able to:

- Define and calculate profitability ratios
- Use the results of calculated ratios to assess the profitability of a business
- Define and calculate liquidity ratios
- Use the results of calculated ratios to assess the financial stability of a business
- Define and calculate efficiency ratios
- Use the results of calculated ratios to assess how well a business controls and uses its assets

**Ratio analysis** is used to calculate and interpret the relationships between financial data in the financial statements. One figure is compared to another to produce a ratio that can then be used to assess the strengths and weaknesses of a business and compare them to previous accounting periods of that business or to other businesses in the same accounting period. They can also be used to compare the actual performance of a business with its budgeted performance.

Ratios should not be analysed in isolation but should be interpreted in the context of the business operations and the current economic conditions.

We will be looking at three categories of ratios:



## Profitability ratios

Profitability ratios are calculated to measure the profitability or financial performance of a business.

There are three main profitability ratios that can be calculated using figures from the Trading, Profit and Loss Account and the Balance Sheet of a business:

### 1. Gross profit as a percentage of sales (also called Gross Profit Ratio)

This measures the percentage of sales revenue remaining after meeting the cost of goods sold. It shows how much gross profit is made per £1 of sales and how successfully the business has been trading.

It is calculated as:

$$\frac{\text{Gross profit}}{\text{Sales}} \times 100 = X\%$$

A gross profit percentage of sales of 28%, for example, means that for every £1 of sales made, 28p is earned as gross profit. In other words, the gross profit is 28% of the sales figure; the other 72% is the cost of goods sold. The higher the gross profit percentage, the better it is for the business.

## 2. Net profit as a percentage of sales (also called Net Profit Ratio)

This measures the percentage of sales revenue retained by a business after the cost of sales and other operating expenses have been paid.

It is calculated as:

$$\frac{\text{Net profit}}{\text{Sales}} \times 100 = X\%$$

A net profit percentage of sales of 15%, for example, means that for every £1 of sales made, 15p is earned as net profit.

When using the net profit percentage to make comparisons between businesses, it is important to allow for different circumstances; this is necessary to account for the differences in the nature and level of expenditure, resulting from different operating and financing arrangements.

If the ratio is being calculated from the financial statement of a limited company, 'operating profit' or 'profit on ordinary activities before tax' should be substituted for net profit.

## 3. Return on capital employed (ROCE)

This measures the return, or profit, of a business in relation to the owner's capital. It shows how well the business is using capital to create revenue.

It is calculated as:

$$\frac{\text{Net profit}}{\text{Capital employed}} \times 100 = X\%$$

A return on capital employed of 7% , for example, is the return that an investor (owner or shareholder) is receiving on their investment and can be compared with returns that they are able to earn elsewhere, e.g. from a bank account. This will help to determine the best investment option.

The calculation of the ROCE for a limited company will be more complex as different levels of profits and various types of capital may be used in the calculation depending on how these are defined.

### Exercise 6.1

The following figures were extracted from the Financial Statements of Cane River Ltd.

Sales	£525,000
Gross profit	£157,500
Net Profit	£94,500
Capital employed	£350,000

Using the appropriate ratios, comment on the profitability of Cane River Ltd.

SOLUTION:

- Gross profit as a percentage of sales =  $\frac{157,500 \times 100}{525,000} = 30\%$
- Net profit as a percentage of sales =  $\frac{94,500 \times 100}{525,000} = 18\%$
- Return on capital employed (ROCE) =  $\frac{94,000 \times 100}{350,000} = 27\%$

Cane River Ltd. appears to be making acceptable levels of gross and net profit. However, it would be helpful if these could be compared to either to the budget or to previous years' trading. This would help the company to assess if it is meeting its targets as well as to identify trends in its level of profitability. Additionally, it would be useful to compare these ratios to those of similar businesses to assess how well the company is doing against its competitors.

The ROCE seems to offer investors a reasonable rate of return but this should also be compared to the return available from other investment opportunities. The rate of return should also be considered in the context of the economic environment.

### Use of profitability ratios

Profitability ratios can be used to review and assess the financial performance of a business and its financial position. The managers of the business will need to monitor whether the business is more or less profitable than it was in the previous accounting period, whether it is more or less profitable than other businesses of a similar size in the same industry. They can also use the ratios to set targets for future accounting periods.

### Liquidity ratios

Liquidity ratios are calculated to measure the financial stability of a business in the short term. They show how well a business is managing its working capital and whether it will be able to meet its current liabilities.

There are two basic liquidity ratios which are calculated using information from the Balance Sheet.

#### 1. Current ratio (also called Working Capital ratio)

This measures how many times the current liabilities of a business are covered by its current assets.

It is calculated as:

$$\frac{\text{Current assets}}{\text{Current liabilities}} = X : 1$$

A current ratio of 2.15:1, for example, means that the business has £2.15 of current assets for every £1 of current liabilities. In other words, the business could pay its current liabilities 2.15 times by using its current assets.

As a general rule a business should aim for a current ratio of 2:1 although whether this is possible will depend on the nature and circumstances of the business. A current ratio of less than 2:1 may signify liquidity problems, especially if the current assets consist of a very high proportion of stocks. This is addressed in the next ratio.

## 2. Acid test ratio (also called Quick ratio)

The acid test ratio is similar to the current ratio but it excludes stock as this is the least liquid of the current assets. It has to be sold, converted to debtors then collected before it becomes cash. The acid test ratio therefore compares the debtors, cash and bank balance with the current liabilities.

It is calculated as:

$$\frac{\text{Current assets} - \text{stock}}{\text{Current liabilities}} = X : 1$$

The ideal ratio is £1 of current assets for each £1 of current liabilities (1:1). If the ratio is lower than this, it could indicate that the business has a liquidity problem. However, this is not a rigid rule and should be used as a guide only; the individual circumstances of the business should be considered.

The acid test ratio is a better indicator of a business's immediate liquidity position than the current ratio because it may be difficult to dispose of stock in the short term.

### Exercise 6.2

The following figures were extracted from the Balance Sheet of Blanch Ltd.

Stock	£55,904
Debtors	£36,276
Cash at bank and in hand	£26,304
Creditors	£35,435
Accruals	£25,325

Using the appropriate ratios, comment on the liquidity of Blanch Ltd.

SOLUTION:

■ **Current ratio** = current assets/current liabilities =  $(55,904 + 36,276 + 26,304) / (35,435 + 25,325)$   
 =  $\frac{£118,484}{£60,760} = 1.95:1$

■ **Acid test ratio** = current assets – stock/current liabilities =  $(36,276 + 26,304) / (35,435 + 25,325)$   
 =  $\frac{£62,580}{£60,760} = 1.03:1$

In the absence of further information, the calculated ratios indicate that the company has no liquidity problems. While the current ratio is slightly below than the ideal of 2:1, the acid test ratio of 1.03:1, confirms that the company can meet its current liability obligations; it would not need to sell stock to meet its liabilities.

## Use of liquidity ratios

Liquidity ratios are used to measure the short term financial stability of a business and show how effectively it is managing its working capital. It is important for the business to know if it will be able to meet its current liabilities using its current assets. If the business has too much money tied up in stock and debtors it may not be able to pay its creditors.

## Efficiency ratios

Efficiency ratios are used to measure how effectively the assets of a business are being managed. There are three main efficiency ratios and they use figures from both the Trading, Profit and Loss Account and Balance Sheet.

### 1. Stock turnover ratio

This shows how many times stock is replaced during the accounting period.

It is calculated as:

$$\frac{\text{Cost of sales}}{\text{Average stock}} = X \text{ times}$$

A stock turnover ratio of 7.4 times, for example, means that stock is replaced 7.4 times during the year. Average stock will need to be calculated before stock turnover. This is calculated as:

$$\frac{\text{Opening stock} + \text{closing stock}}{2} = \text{£X}$$

Stock turnover can also be calculated as an average stock holding period measured in days (or months) using the formula:

$$\frac{\text{Average stock}}{\text{Cost of sales}} \times 365 = X \text{ days}$$

OR

$$\frac{\text{Average stock}}{\text{Cost of sales}} \times 12 = X \text{ months}$$

In the above example, a stock turnover ratio of 7.4 times is the same as a stock turnover of 49.3 days which means that the stock is replaced every 49.3 days.

The greater the stock turnover, the more efficient the business would appear to be in purchasing and selling goods. The longer that stock is held by the business, the greater the risk there is of it being damaged or becoming obsolete. However, it is important to consider the nature of the business. For example, a food store selling fresh produce will expect to have a higher stock turnover than a jewellery business.

### 2. Debtors' collection period

This shows the average time in days (or months) it takes a business to collect money from its debtors.

It is calculated as:

$$\frac{\text{Debtors}}{\text{Sales}} \times 365 = X \text{ days}$$

OR

$$\frac{\text{Debtors}}{\text{Sales}} \times 12 = X \text{ months}$$

A debtors' collection period of 47 days means that it takes the business, on average, 47 days after each sale is made to collect the debt.

This ratio is important as it helps the business to assess the efficiency of its credit control procedures. Many businesses aim to take fewer days to collect from debtors than it takes to pay creditors, to maintain a balanced working capital. It is difficult to suggest an acceptable debtor collection period as it will depend on the credit terms on which the business trades. Some businesses expect bills to be settled within 30 days of the delivery of goods, while others might expect settlement immediately upon receipt of the invoice. Like other ratios, it is important to establish a trend. A trend of increasing number of days might suggest that the business's credit control procedures have begun to be less effective.

### 3. Creditors' settlement period

This shows the average time in days (or months) it takes a business to pay its creditors.

It is calculated as:

$$\frac{\text{Creditors}}{\text{Purchases}} \times 365 = X \text{ days}$$

OR

$$\frac{\text{Creditors}}{\text{Purchases}} \times 12 = X \text{ months}$$

A creditors' settlement period of 73 days, for example, means that on average a business pays its creditors 73 days after the purchase is made. An upward trend in the creditors' settlement period might suggest that the business is having some difficulty in finding cash to pay its creditors. It may be a sign that the business is experiencing financial difficulties.

### Use of efficiency ratios

The results of efficiency ratio calculations are used to help a business manage its assets effectively.

A business needs to convert stock to liquid funds (cash) as soon as possible – the stock turnover ratio shows how quickly this is being done.

It needs to ensure it has efficient credit control procedures to convert debtors to cash as quickly as possible – the debtors' collection period shows how quickly this is being done.

It needs to ensure that it isn't paying creditors so slowly that they will stop supplying goods but not too quickly that there isn't sufficient cash to meet its other liabilities – the creditors' settlement period gives this information.

### Activity 6.1

Identify which ratio a business manager should use to answer the following questions about the business. Write the answer on the line after each question.

1. Is the business paying its suppliers more quickly than last year? \_\_\_\_\_
2. How easily will the business be able to meet its short term liabilities? (2 answers) \_\_\_\_\_

3. Has the business improved its profit performance during the accounting period ? (2 answers) \_\_\_\_\_
4. Are the sales of the business converted to cash in less than 90 days? \_\_\_\_\_
5. Does the business make a higher return than a bank account paying interest of 8%? \_\_\_\_\_
6. Does the business replace its stock more often than once a month? \_\_\_\_\_

**Activity 6.2**

Use the information given to calculate the ratio required, the answer must show the ratio in the correct format.

Financial information	Ratio required	Answer
Gross profit £40,300 Sales £130,000	Gross profit as a percentage of sales	
Net profit £57,500 Sales £230,000	Net profit as a percentage of sales	
Net profit £36,250 Capital employed £453,125	Return on capital employed	
Current assets £39,088 Current liabilities £17,450	Current ratio / Working capital ratio	
Current assets £ 38,315 (excluding stock) Current liabilities £24,250	Acid test / Quick ratio	
Opening stock £12,450 Closing stock £14,750 Cost of sales £62,050	Stock turnover period in days	
Debtors £85,776 Sales £652,255	Debtors' collection period in days	
Creditors £87,040 Purchases £435,200	Creditors' settlement period in days	

**Activity 6.3**

The following extracts are from the financial accounts of Danrow for the year ended 31 March 20X9:

<b>Danrow</b>			
<b>Balance Sheet at 31 March 20X9</b>			
	£	£	£
	<b>Cost</b>	<b>Depn</b>	<b>NBV</b>
<b>Fixed assets</b>			
Plant and equipment	78,600	29,640	48,960
Fixtures and fittings	<u>18,300</u>	<u>7,980</u>	<u>10,320</u>
	<u>96,900</u>	<u>37,620</u>	59,280
<b>Current assets</b>			
Stock		18,000	
Debtors		28,800	
Bank		<u>2,760</u>	
		<u>49,560</u>	
<b>Current liabilities</b>			
Creditors		20,160	
Accruals		<u>1,620</u>	
		<u>21,780</u>	
<b>Net current assets</b>			<u>27,780</u>
<b>Net assets</b>			<u>87,060</u>
<b>Capital Account:</b>			
Capital at 1 April 20X8			98,340
Profit for the year			<u>34,320</u>
			132,660
Less: Drawings			<u>45,600</u>
			<u>87,060</u>

The following figures were extracted from the Trading and Profit & Loss Account for the year ended 31 March 20X9.

	£
Sales	345,600
Purchases	255,000
Cost of goods sold	259,200
Expenses	52,080
Net profit	34,320

Calculate the following ratios for Danrow for the year ended 31 March 20X9 (calculations to be taken to 1 decimal place), and comment on the results of each ratio.

- (a) Gross profit margin percentage
- (b) Net profit percentage
- (c) Debtors' collection period
- (d) Creditors' settlement period
- (e) Current ratio
- (f) Acid Test ratio

# Appendix

## Answers to Activities

## SECTION 1

### Activity 1.1

1. The Trading, Profit and Loss Account, The Balance Sheet and The Cash Flow Statement
2. The Balance Sheet
3. For a period of time
4. The cash inflows and outflows of a business during the accounting period

### Activity 1.2

- 1 – B
- 2 – D
- 3 – E
- 4 – A
- 5 – F
- 6 – C

## SECTION 2

### Activity 2.1

- (a) Brianna must apply the concept of matching and accruals to ensure that the expenses of the business are accounted for in the correct period. Although it hasn't yet been billed the business will have used electricity in the months of November and December 20X8 and Brianna must make an estimate of the amount used and accrue for it in the Trading, Profit and Loss Account. The payment for rent does not relate to the accounting period ended 31 December 20X8 so it should not be included in the expenses in the Trading, Profit and Loss Account. Brianna should account for it as a prepayment in the Balance Sheet.
- (b) Kevin must apply the concept of prudence and should account for the premises in fixed assets on the Balance Sheet at the price he has paid for it and not the full market value. It would not be prudent to account for the premises at a higher amount than the cash paid for it.
- (c) Samara must apply the concept of prudence and recognise the fact that the debtor is unlikely to pay their bill. She needs to make a charge for bad debts written off in the Trading, Profit and Loss Account and reduce the debtors' amount in the Balance Sheet by the same amount.
- (d) Dane must apply the concept of matching and accruals and must not include the order in the sales total in the Trading, Profit and Loss Account for the year ended 31 December 20X8. It should be accounted for in the year ending 31 December 20X9 as this is the year in which the sale will be made.
- (e) The business must apply the concept of matching and accruals and include the sale in the year ended 30 September 20X9. Alexander will be a debtor of the business in the Balance Sheet at 30 September 20X9.

**Activity 2.2**

Purchased a building	C
Paid insurance premium for delivery vehicle	R
Paid rent and rates for the new building	R
Bought a car for use in the business	C
Bought petrol for the delivery vehicle	R
Paid wages of shop assistant	R
Paid for office extension	C
Bought new office furniture	C
Paid for repairs to the building	R
Bought watches for resale	R

**SECTION 3****Activity 3.1**

	Business 1	Business 2	Business 3	Business 4
Sales	375,250	375,250	375,250	375,250
Cost of goods sold	253,750	324,675	394,300	354,200
Gross profit/loss	125,500	50,575	(19,050)	21,050
Other revenue	7,500	1,250	6,600	5,230
Operating expenses	72,400	53,750	23,800	31,600
Net profit/loss	56,660	(1,925)	(36,250)	(5,320)

**Activity 3.2**

Cost of goods sold = (purchases + opening stock – closing stock)

$$245,000 + 73,000 - 65,000 = \underline{\pounds 253,000}$$

Gross profit = (sales – cost of goods sold)

$$750,000 - 253,000 = \underline{\pounds 497,000}$$

Net profit = (gross profit + interest receivable – administration expenses – depreciation – wages and salaries)

$$497,000 + 15,340 - 127,500 - 85,500 - 136,400 = \underline{\pounds 162,940}$$

### Activity 3.3

1. 1 October 20X6
2. £68,862 i.e the cost of goods sold
3. £165 i.e returns inward
4. £1,924 i.e. returns outward
5. £38,343 i.e. gross profit
6. £7,707 i.e net profit
7. £860 i.e bad debts
8. £790 i.e. discount received
9. To ensure that the Trading, Profit and Loss Account reflects a charge for the fall in value of the fixed assets owned and used by the business
10. £6,917 i.e. net profit of £7,707 less the discount received of £790

## SECTION 4

### Activity 4.1

The Balance Sheet of a business shows its financial position at a point in time. It shows the items owned by the business, called the assets, the amounts it owes to the third parties, called the liabilities and the money invested by the owners of the business, called the capital or owners' equity.

There are two types of assets, fixed assets which are those that are owned and used to run the business and current assets which are owned and used in the trade of the business.

There are two types of liabilities, current liabilities which must be repaid within one year following the end of the accounting period and long term liabilities which must be repaid in more than one year after the end of the accounting period.

## Activity 4.2

**S. Tiwary**  
**Balance Sheet at 31 March 20X7**

	£	£
<b>Fixed Assets</b>		
Land and Buildings		350,000
Fixtures and Fittings		25,750
Motor Vehicles		<u>17,250</u>
		393,000
<b>Current Assets</b>		
Stock	46,400	
Debtors	27,150	
Cash in Hand	<u>2,050</u>	
	75,600	
<b>Creditors falling due in less than one year</b>		
Trade creditors	<u>24,375</u>	
<b>Net current assets</b>		<u>51,225</u>
<b>Total assets less current liabilities</b>		<u>444,225</u>
Capital		325,000
Profit and Loss Account		<u>119,225</u>
		<u>444,225</u>

## Activity 4.3

1. The shop premises owned by Stella are included on her Balance Sheet as a fixed asset and the cost of the extension to the shop will be accounted for in the same way. Stella will include the cost of the extension on her Balance Sheet.
2. Each year Stella will decide whether any of the customers who owe her money at the end of the accounting period are unlikely to be able to pay their bills. The total amount will then be shown as an expense (called Bad Debts) in the Trading, Profit and Loss account. Stella will not include the bad debt charge on her Balance Sheet.
3. When preparing her Trading, Profit and Loss Account Stella will include an expense for rent incurred during the accounting period. If rent has been paid in advance for the next accounting period Stella must not include it as an expense but will account for it as a prepayment (prepaid expense). Stella will include the prepayment on her Balance Sheet.
4. When preparing her Trading, Profit and Loss Account Stella will show an accrual (accrued expense) for the amounts still to be paid. Stella will include the accrual on her Balance Sheet.
5. Stella will use the value of the stock of toys for resale at the end of the accounting period (closing stock) to calculate the cost of goods sold for the period and she will show it as an asset at the end of the period. Stella will include the closing stock on her Balance Sheet.
6. Each year Stella must include in her Trading, Profit and Loss Account a charge for depreciation

which recognises the fact that her fixed assets will fall in value over time. The total accumulated amount of depreciation at the end of each accounting period is deducted from the cost of the fixed assets in the Balance Sheet. Stella will not include the depreciation charge for the year on her Balance Sheet.

## SECTION 5

### Activity 5.1

The Trading and Profit and Loss Account is prepared using the accruals method of accounting, a Cash Flow Statement is prepared using the cash basis of accounting.

The equation underlying the Cash Flow Statements shows that the change in cash and cash equivalents equals the total of cash generated by/used for operating activities plus investing activities plus financing activities.

There are two methods of calculating the cash flow from operating activities. The most widely used is called the indirect method, the other method is called the direct method.

### Activity 5.2

Answer the questions below.

1. A Cash Flow statement is needed to provide reconciliation between the profit or loss shown in the Trading, Profit and Loss account and the amounts of opening and closing cash shown on the Balance Sheet of a business.
2.
  - Prepayments for expenses – the amounts shown in the Trading, Profit and Loss Account would be less than the amount of cash paid out during the accounting period.
  - Non cash receipts may be included in the Trading, Profit and Loss Account that do not increase the amount of cash held by the business e.g. interest due from an investment but not received at the end of the accounting period.
  - Large amounts spent on fixed assets will not be charged to the Trading, Profit and Loss Account but will reduce the cash held by the business.
3. Depreciation is a charge to the Trading, Profit and Loss Account which is made to recognise the fact that fixed assets owned and used by the business will fall in value over the time that they are used. This is a non cash charge and so has no effect on the cash or bank balances held by the business.
4. Recommended format for a Cash Flow Statement:
  - Net cash inflow from operating activities
  - Returns on investments and servicing of finance
  - Taxation
  - Capital expenditure and financial investments
  - Acquisitions and disposals
  - Equity dividends paid
  - Net cash outflow/inflow before use of liquid resources and financing
  - Management of liquid resources
  - Financing
  - Net decrease/increase in cash

5. How can the information from the Cash Flow Statement be used.

- To provide information on liquidity and solvency
- To help with budgeting
- To allow investors to see how healthy the business is

## SECTION 6

### Activity 6.1

1. Creditors' settlement period
2. Current ratio (Working capital ratio) & Acid Test ratio (Quick ratio)
3. Gross Profit as a percentage of sales & Net Profit as a percentage of sales
4. Debtors' collection period
5. Return on capital employed
6. Stock turnover ratio

### Activity 6.2

Financial information	Ratio required	Answer
Gross profit £40,300 Sales £130,000	Gross profit as a percentage of sales	$40,300/130,000 \times 100$ = 31%
Net profit £57,500 Sales £230,000	Net profit as a percentage of sales	$57,500/230,000 \times 100$ = 25%
Net profit £36,250 Capital employed £453,125	Return on capital employed	$36,250/453,125$ = 8%
Current assets £39,088 Current liabilities £17,450	Current ratio / Working capital ratio	$39,088/17,450 =$ 2.24:1
Current assets £ 38,315 (excluding stock) Current liabilities £24,250	Acid test / Quick ratio	$38,315/24,250 =$ 1.58:1
Opening stock £12,450 Closing stock £14,750 Cost of sales £62,050	Stock turnover period in days	$(12,450 + 14,750)/2$ = 13,600 $13,600/62,050 \times 365$ = 80 days
Debtors £85,776 Sales £652,255	Debtors' collection period in days	$85,776/652,255 \times 365$ = 48 days
Creditors £87,040 Purchases £435,200	Creditors' settlement period in days	$87,040/435,200 \times 365$ 73 days

**Activity 6.3**

**(a) Gross profit margin percentage**  $\frac{86,400}{345,600} \times 100 = 25.0\%$

This appears to be a satisfactory gross profit margin but the business managers would need to compare it to the margin achieved in previous years and with that achieved by similar businesses to draw meaningful conclusions.

**(b) Net profit percentage**  $\frac{34,320}{345,600} \times 100 = 9.9\%$

This appears to be a satisfactory net profit margin but the business managers would need to compare it to the margin achieved in previous years and with that achieved by similar businesses to draw meaningful conclusions.

**(c) Debtors' collection period**  $\frac{28,800}{345,600} \times 365 = 30.4 \text{ days}$

Debtors are paying their bills, on average, a month after the bills are sent out. This appears to be a reasonable payment period but the business managers would need to compare it to the period in previous years (see comments on creditors' settlement below). The debtors' collection period should also be compared to the credit terms agreed when sales are made.

**(d) Creditors' settlement period**  $\frac{20,160}{255,000} \times 365 = 28.9 \text{ days}$

The business is paying its creditors on average just under a month after goods and services are supplied. The business managers would need to compare this to previous years and to the supplier credit terms to draw meaningful conclusions. It should also be compared to the debtors' collection period (above), this comparison shows that the business is paying its creditors on average slightly more quickly than debtors are paying their bills. This difference should be monitored as cash flow problems could arise if creditors are being paid much more quickly than cash is being received from debtors.

**(e) Current ratio**  $\frac{49,560}{21,780} = 2.3 : 1$

As a general rule a business should aim for a current ratio of 2:1 so the figure indicates that the business does not have any liquidity problems.

**(f) Acid test ratio**  $\frac{31,560}{21,780} = 1.4 : 1$

An acid test ratio of 1:1 means that a business can meet its current liabilities from current assets without needing to convert stock to cash i.e. a healthy liquidity position. The figure above shows that the business does not have any short term liquidity problems.

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