The CPA Program’s foundation level

CPA Australia is a member of the International Federation of Accountants (IFAC). All CPA Program education materials are developed in line with IFAC’s International Education Standards. These standards provide guidance in establishing the content of professional accounting education programs together with the associated assessment. The standards also assist in developing the required passing standard for accounting education and competence of a professional accountant.

The foundation level exams provide you with the opportunity to demonstrate your competence in core knowledge areas required for Associate membership of CPA Australia. By demonstrating this entry level knowledge you will be well positioned to succeed at the professional level of the CPA Program and ultimately attaining the CPA designation.

You and your study plan

This study manual is designed to give you an understanding of what to expect in your exam as well as covering the fundamentals that you need to know. Exams will be based on the contents of this study manual.

There are no specifically recommended hours of study. Each candidate brings their own level of experience and knowledge to the foundation level units. The number of study hours required is entirely dependent on your prior knowledge of the subject. You will need to develop your own study plan. Refer to Preparing for foundation level exams on page viii.

Additional Learning Support

If you feel that you have gaps in your knowledge after reviewing your study manual, there is a range of optional additional support to assist in your exam preparation. Additional learning support includes face-to-face and online tuition, Passcards and i-Pass CDs to cater for different learning styles and budgets.

Please check the CPA Australia website for more information www.cpaaustralia.com.au/learningsupport

Standards and Legislation

The material in this study manual has been prepared based upon standards and legislation in effect as at 1 September 2013. Candidates are advised that they should confirm effective dates of standards and legislation when using additional study resources. Exams for 2014 are based on the learning objectives outlined within this study manual.
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<td>A quick test of your knowledge of the main topics in this chapter. The quick revision questions are not a representation of the difficulty or style of questions which will be in the exam. They provide you with an opportunity to revise and assess your knowledge of the key concepts covered in the materials so far. They are not a practice exam, but rather a means to reflect on key concepts and not as the sole revision for the exam.</td>
</tr>
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<td>Revision questions</td>
<td>The revision questions are not a representation of the difficulty or style of questions which will be in the exam. They provide you with an opportunity to revise and assess your knowledge of the key concepts covered in the materials so far. They are not a practice exam, but rather a means to reflect on key concepts and not as the sole revision for the exam.</td>
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<td>Formula to learn</td>
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<td>Throughout the Study Manual you will see that some of the text is in <strong>bold type</strong>. This is to add emphasis and to help you to grasp the key elements within a sentence and paragraph.</td>
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Preparing for foundation level exams

Study plan
- Review all the learning objectives thoroughly. Use the topic exam weightings listed at the end of the learning objectives to develop a study plan to ensure you provide yourself with enough time to revise each learning objective.
- Don’t leave your study to the last minute. You may need more time to explore learning objectives in greater detail than initially expected.
- Be confident that you understand each learning objective. If you find that you are still unsure after reading the study manual, seek additional information from other resources such as text books, supplementary learning materials or tuition providers.

Study techniques
- In addition to being able to complete the revision and self-assessment questions in the study manual, ensure you can apply the concepts of the learning objectives rather than just memorising responses.
- Some units have formulae and discount tables available to candidates throughout the exams. My Online Learning lists the tools available for each unit under "Useful Resources".
- Check My Online Learning on a weekly basis to keep track of announcements or updates to the study manual.
- Familiarise yourself with the exam environment by downloading the exam software tutorial and learn how to navigate your way around the exam software quickly on the Pearson VUE website. www.pearsonvue.com/athena

Tips for exams
- Plan to arrive at the exam centre at least 15 minutes before your exam. Allow for possible delays with public transport or traffic.
- You have three hours and fifteen minutes to complete the exam. As soon as you commence the exam your exam clock in the top right hand corner of the screen begins to count down. Watch your time carefully.
**Answering multiple choice questions**

Foundation level exams are a series of 100 multiple choice questions. Each question will contain four possible options.

**Step 1**  
Attempt every question. Read the question thoroughly. You may prefer to work out the answer before looking at the options, or you may prefer to look at the options at the beginning. Adopt the method that works best for you.

**Step 2**  
Read the four options and see if one matches your own answer. Be careful with numerical questions, as some options are designed to match answers that incorporate common errors. Check that your calculation is correct. Have you followed the requirement exactly? Have you included every step of the calculation?

**Step 3**  
You may find that none of the options matches your answer.

- Re-read the question to ensure that you understand it and are answering the requirement.
- Eliminate any obviously wrong answers.
- Consider which of the remaining answers is the most likely to be correct and select the option.

**Step 4**  
If you are still unsure, make a note and continue to the next question. Some questions will take you longer to answer than others. Try to reduce the average time per question, to allow yourself to revisit problem questions at the end of the exam.

Revisit unanswered questions. When you come back to a question after a break you often find you are able to answer it correctly straight away. You are not penalised for incorrect answers, so **never leave a question unanswered!**
This summary provides a snapshot of each of the chapters, to help you to put the syllabus as a whole and the Study Manual itself into perspective.

**Chapter 1 – Financial reporting and the regulatory framework**
In this introductory chapter we will consider the purpose of financial reporting and in particular who the financial statements are prepared for – the users of financial statements – and their information needs. We will also consider the regulatory framework within which international accounting standards are prepared and how this contributes to international GAAP.

**Chapter 2 – The conceptual framework and accounting policies**
The IASB’s *Conceptual Framework for Financial Reporting* represents the conceptual framework on which all IFRSs are based and in this chapter we will consider this in detail. Allied to the conceptual framework is IAS 8 *Accounting policies, changes in accounting estimates and errors*, which should be considered when an entity decides upon its accounting policies.

**Chapter 3 – The financial statements**
For the purpose of this syllabus we will be studying how to prepare a set of financial statements for limited liability companies, either single companies or groups of companies.

In this chapter we begin by looking at the overall format and content of company financial statements as set out in IAS 1 (revised) *Presentation of financial statements*. This Chapter also covers IAS 18 *Revenue*, which provides guidance on the recognition and measurement of income within profit or loss in the statement of profit or loss and other comprehensive income.

**Chapter 4 – Statement of cash flows**
As well as a statement of financial position and a statement of profit or loss and other comprehensive income, a company must also prepare a statement of cash flows. In this chapter we shall consider in detail IAS 7 *Statement of cash flows* and how to prepare such a statement.

**Chapter 5 – Inventory and property, plant and equipment**
In this chapter we consider two important elements of financial statements – inventory and non-current assets. The valuation of inventory has a direct impact on gross profit and therefore is an important area. Property, plant and equipment is often the biggest balance in many companies’ statement of financial position. We will consider how to account for the initial cost of non-current assets, how to depreciate those assets, how to revalue assets if desired and how to account for the disposal of any non-current assets.

**Chapter 6 – Intangible assets**
In the previous chapter we considered the accounting treatment of tangible non-current assets. In this chapter we move on to study the accounting treatment of intangible non-current assets in general and research and development costs in particular.
Chapter 7 – Impairment of assets
Carrying on from the previous two chapters we now consider the accounting treatment when an asset, either tangible or intangible, falls in value. The accounting requirements are set out in IAS 36 Impairment of assets and include consideration of cash-generating units.

Chapter 8 – Taxation
This chapter deals with the two main aspects of taxation in a limited company’s financial statements which are current tax and deferred tax.

Chapter 9 – Accounting for foreign currency
There are two main aspects to dealing with foreign exchange which will be dealt with in this chapter. Firstly, many companies will buy or sell goods from or to another country and in a foreign currency. These transactions in the foreign currency must be translated before they can be included in the financial records. The second aspect is that groups may include a foreign subsidiary and before the subsidiary’s results can be included in the group financial statements the subsidiary’s own financial statements must be translated.

Chapter 10 – The principles of consolidation
The next four chapters will be looking at the techniques for preparing group financial statements or consolidated financial statements. In this introductory chapter we will consider the major definitions and principles of consolidation which are vital to your understanding of the subject.

Chapter 11 – The consolidated statement of financial position
In this chapter we will study the basic procedures for producing a consolidated statement of financial position. Plenty of question practice is required but if you understand the basic steps and workings at this stage then your further studies of consolidated financial statements will become much easier.

Chapter 12 – The consolidated statement of profit or loss
This chapter covers the preparation of the consolidated statement of profit or loss. If you understood the previous chapter then most of the consolidation adjustments for a consolidated statement of profit or loss should be fairly straightforward.

Chapter 13 – Associates and equity accounting
We have seen how to deal with subsidiaries in the consolidated financial statements in the last few chapters but in this chapter we will consider the accounting treatment of associated companies. This is known as the equity method of accounting.

Chapter 14 – Analysis of financial statements
In this chapter we consider the interpretation of financial statements by looking at the calculation of a number of different ratios and more importantly how these ratios can be used to analyse and interpret the financial statements. We shall also consider the limitations of financial analysis.
CPA Australia’s learning objectives for this Study Manual are set out below. They are cross-referenced to the chapter in the Study Manual where they are covered.

## Financial Accounting and Reporting

### General overview

This exam covers an understanding of the format and function of financial statements, including analysis and interpretation of financial statements. It also includes the production of financial statements for consolidated company groups, and foreign currency translation.

These are the topics that will be covered in the exam.

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| LO6.2 | Explain how goodwill is measured and disclosed at date of acquisition | 11 |
| LO6.3 | Explain how goodwill is measured subsequent to the date of acquisition including the requirements regarding impairment | 11 |
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Chapter 1

Financial reporting and the regulatory framework

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<td>relationship to accounting standards</td>
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<td>Explain the objectives of financial reporting and general purpose financial</td>
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Topic list

1. The purpose of financial reporting
2. The reporting entity
3. Users' and stakeholders' needs
4. The regulatory framework and accounting standards
5. International GAAP
Introduction

Before you learn how to prepare financial reports, it is important to understand why they are prepared. Sections 1 – 3 of this chapter introduce some basic ideas about financial reports and give an indication of their purpose, including consideration of the main users of financial statements and their needs.

In Sections 4 and 5, we introduce the regulatory system run by the International Accounting Standards Board (IASB), and how the Standards it produces contribute to International GAAP.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What is the purpose of financial reporting?  
   (Section 1)

2. What is a reporting entity?  
   (Section 2)

3. Who are the main user groups of financial statements, and why are they interested in financial information?  
   (Sections 3.1 and 3.2)

4. Which four international bodies are involved in the regulation of accounts and financial reporting?  
   (Section 4)

5. What is the purpose of each of these bodies?  
   (Section 4)

6. What is GAAP?  
   (Section 5)
1 The purpose of financial reporting

Section overview
- Financial reporting is the process of classifying, recording and presenting financial data in accordance with generally established concepts and principles.

Financial data is the name given to the actual transactions carried out by a business e.g. sales of goods, purchases of goods, payment of expenses. These transactions are analysed according to type, recorded in ledger accounts and summarised in the financial statements.

Financial reporting is therefore the process of reporting the results and financial position of a business or 'reporting entity'. It is not primarily concerned with providing information towards the more efficient running of the business. Although financial accounts are of interest to management, their principal function is to provide historical information in order to satisfy the information needs of persons not involved in running the business.

Question 1: Financial reporting

Financial reporting means the financial statements produced only by a large listed company.

Is this statement correct?

A  Yes
B  No

(The answer is at the end of the chapter)

2 The reporting entity

Section overview
- A reporting entity is an entity whose general purpose financial statements are relied upon by other parties, or users of the accounts.

A reporting entity is defined in Australia as 'an entity in respect of which it is reasonable to expect the existence of users who rely on the entity’s general purpose financial statements for information that will be useful to them for making and evaluating decisions about the allocation of resources. A reporting entity can be a single entity or a group comprising a parent and all of its subsidiaries'.

The 'reporting entity' concept is not, however, one that is currently adopted outside Australia and at present International standard-setters have no official equivalent definition. Internationally therefore, a reporting entity is taken quite simply to be an entity, or group of entities, which prepare accounts. A project is currently underway to develop an international ‘reporting entity’ concept.
3 Users' and stakeholders' needs

3.1 The need for financial statements

Section overview

- There are various groups of people who need information about the activities of a reporting entity.

Why do businesses need to produce financial statements? If a business is being run efficiently, why should it have to go through all the bother of accounting procedures in order to produce financial information?

The International Accounting Standards Board states in its document *The Conceptual Framework for Financial Reporting* (*The Conceptual Framework*) which we will examine in detail later in this Study Manual:

‘The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit.’

In other words, a business should produce information about its activities because there are particular groups of people who want or need to know that information. This sounds rather vague: to make it clearer, we will study the classes of people who need information about a business. We need also to think about what information in particular is of interest to the members of each class.

Large businesses are of interest to a greater variety of people and so we will consider the case of a large public company, whose shares can be purchased and sold on a stock exchange. The *Conceptual Framework* specifically mentions investors and lenders, but in practice these may not be the only users.

3.2 Users of financial statements and accounting information

The following primary users are likely to be interested in financial information about a large company with listed shares:

(a) **Shareholders of the company**, i.e. the company's owners, want to assess how well the management is performing. They want to know how profitable the company's operations are and how much profit they can afford to withdraw from the business for their own use.

(b) **Providers of finance to the company** might include a bank which allows the company to operate an overdraft, or provides longer-term finance by granting a loan. The bank wants to ensure that the company is able to meet interest payments, and eventually to repay the amounts advanced.

(c) **Trade contacts** include suppliers who provide goods to the company on credit and customers who purchase the goods or services provided by the company. **Suppliers** want to know about the company's ability to pay its debts; **customers** need to know that the company is a secure source of supply and is in no danger of having to close down.

Other users of financial statements include:

(d) **Managers of the company** appointed by the company's owners to supervise the day-to-day activities of the company. They need information about the company's financial situation as it is currently and as it is expected to be in the future. This is to enable them to manage the business efficiently and to make effective decisions.

(e) **The taxation authorities** want to know about business profits in order to assess the tax payable by the company, including sales taxes.

(f) **Employees of the company** should have a right to information about the company’s financial situation, because their future careers and the size of their wages and salaries depend on it.
Financial analyst and advisers need information for their clients or audience. For example, stockbrokers need information to advise investors; credit agencies want information to advise potential suppliers of goods to the company; and journalists need information for their reading public.

Government and their agencies are interested in the allocation of resources and therefore in the activities of business entities. They also require information in order to provide a basis for national statistics.

The public. Entities affect members of the public in a variety of ways. For example, they may make a substantial contribution to a local economy by providing employment and using local suppliers. Another important factor is the effect of an entity on the environment, for example in relation to pollution.

Accounting information is summarised in financial statements to satisfy the information needs of these different groups. Not all will be equally satisfied.

3.3 Needs of different users

Managers of a business need the most information, to help them make their planning and control decisions. They clearly have ‘special’ access to information about the business, because they are able to demand whatever internally produced statements they require. When managers want a large amount of information about the costs and profitability of individual products, or different parts of their business, they can obtain it through a system of cost and management accounting rather than rely on the financial accounts.

Shareholders, providers of finance and financial analysts and advisers need information that helps them to make decisions: whether to buy, hold or sell their investment in a business or whether to lend money to it. Unlike managers, these users are external to the business. Therefore they normally have to rely on the published financial statements to provide them with the information that they need.

For this reason, in most developed countries, including Australia, published financial statements are primarily prepared to meet the information needs of existing and potential investors and lenders and their advisors. We will be looking again at the information needs of these particular users in the next chapter.

Question 2: Information needs

Which of the following items in the financial statements of a company would be of particular interest to a customer?

A. Operating profit  
B. Retained earnings  
C. Dividend payments  
D. Directors’ remuneration

(The answer is at the end of the chapter)

4 The regulatory framework and accounting standards

Section overview

- The International Accounting Standards Board (IASB) develops accounting standards with the support of the IFRS Advisory Council; the IFRS Interpretations Committee is responsible for the development of interpretations on new and emerging issues which arise in IFRSs, and the interpretations are subsequently issued by the IASB.
In an attempt to help the users of accounts process financial information from different sources and achieve comparability between different organisations, accounting standards were developed. These are developed at both a national level (in many countries) and an international level. In this Study Manual we are concerned with International Accounting Standards (IASs) and International Financial Reporting Standards (IFRSs).

4.1 International Financial Reporting Standards and the IASB

International Financial Reporting Standards (IFRSs) are produced by the International Accounting Standards Board (IASB). The IASB develops IFRSs through an international process that involves the worldwide accountancy profession, the preparers and users of financial statements, and national standard-setting bodies. Prior to 2003 standards were issued as International Accounting Standards (IASs). In 2003 IFRS 1 was issued and all new standards are now designated as IFRSs. Throughout this Study Manual, we will use the abbreviation IFRSs to include both IFRSs and IASs.

4.2 IFRS Advisory Council

Formerly known as the Standards Advisory Council (SAC), the IFRS Advisory Council assists the IASB in standard setting. It has about 40 members drawn from organisations all over the world, such as national standard-setting bodies, accountancy firms, the International Monetary Fund (IMF) and the World Bank. The IFRS Advisory Council normally meets with the IASB at least three times a year and puts forward the views of its members on current standard-setting projects.

4.3 IFRS Interpretations Committee

The IFRS Interpretations Committee was originally set up as the International Financial Reporting Interpretations Committee (IFRIC) in December 2001, and issues guidance in cases where unsatisfactory or conflicting interpretations of accounting standards have developed. In these situations, the Committee works closely with similar national committees with a view to reaching consensus on the appropriate accounting treatment.

In 2010 the IFRIC changed its name to the IFRS Interpretations Committee, although the abbreviated version of its name remains the IFRIC.

4.4 The International Financial Reporting Standards Foundation (IFRS Foundation)

The IFRS Foundation is an independent body that oversees the IASB. It was formed as a not-for-profit corporation in the US, and until March 2010 was known as the International Accounting Standards Committee Foundation (IASCF).
The objectives of the IFRS Foundation, the IASB and the other bodies are:

(a) To develop, in the public interest, a single set of high quality, understandable, enforceable and **globally accepted financial reporting standards** based upon clearly articulated principles. These standards should require high quality, transparent and comparable information in financial statements and other financial reporting to help investors, other participants in the world’s capital markets and other users of financial information to make economic decisions.

(b) To promote the use and **rigorous application** of those standards.

(c) To take account of the needs of a range of sizes and types of entities in diverse economic settings.

(d) To **promote and facilitate adoption** of International Financial Reporting Standards (IFRSs), through the convergence of national accounting standards and IFRSs.

In Australia, reporting entities must comply with Australian Accounting Standards. These are known as Australian Equivalent to International Financial Reporting Standards (A-IFRSs). A-IFRSs are essentially IFRSs as issued by the IASB, modified by additional paragraphs detailing the scope and applicability of the standard in Australia.

### 4.5 The use and application of IASs and IFRSs

IASs and IFRSs have helped to both improve and harmonise financial reporting around the world. The standards are used in the following ways:

(a) **As national requirements**, often after a national process.

(b) **As the basis** for all or some national requirements.

(c) **As an international benchmark** for those countries that develop their own requirements.

(d) **By regulatory authorities** for domestic and foreign companies.

(e) **By companies** themselves.
5 International GAAP

Section overview

- GAAP is a term which signifies all of the rules which govern accounting.

Generally Accepted Accounting Principles, or GAAP, is a term which has arisen in recent years and signifies all the rules, from whatever source, that govern accounting. The rules may derive from:

- Local (national) company legislation.
- National and International Accounting Standards.
- Statutory requirements in other countries (particularly the US).
- Stock exchange requirements.

International GAAP comprises the accounting standards and other guidance documents issued by the various bodies of the IFRS Foundation:

- IASs and IFRSs issued by the IASB.
- Interpretations issued by the IFRS Interpretations Committee.

These documents are supplemented by local legislation, statutory and stock exchange requirements to become local GAAP in the countries in which IFRS is adopted.

Note that you may sometimes see GAAP defined as Generally Accepted Accounting Practice, but the meaning is the same.
Key chapter points

- Financial reporting is the process of classifying, recording and presenting financial data in accordance with generally established concepts and principles.
- A reporting entity is an entity whose general purpose financial statements are relied on by users of accounts.
- Various groups of people need information about the activities of a reporting entity, including investors, the management, suppliers, customers, lenders, employees, the tax authorities, the government and the general public. The primary users of financial statements are investors and lenders/creditors.
- The IASB is overseen by the IFRS Foundation and develops accounting standards with the support of the IFRS Advisory Council.
- The IFRS Interpretations Committee is responsible for issuing guidance on new and emerging issues or where conflict exists.
- GAAP is a term which signifies all of the rules which govern accounting in a particular jurisdiction, including accounting standards, legislation and stock exchange requirements.
Quick revision questions

1. The main aim of accounting is to:
   A. maintain ledger accounts for every asset and liability
   B. produce a trial balance
   C. provide financial information to users of such information
   D. record every financial transaction individually

2. Which of the following statements concerning the International Accounting Standards Board is true?
   II. The IASB is accountable to the International Accounting Standards Committee (IASC).
   A. I only
   B. II only
   C. Both statements
   D. Neither statement

3. Are the following statements true or false?
   - The shareholder is only interested in a statement of financial prospects, i.e. an indication of future progress.
   - The supplier of goods on credit is only interested in a statement of financial position, i.e. an indication of the current state of affairs.
   Shareholder Supplier
   A. false true
   B. false false
   C. true false
   D. true true

4. Which of the following is not a primary information need for the 'investor' user group of financial statements?
   A. Assessment of repayment ability of an entity
   B. Measuring performance, risk and return
   C. Taking buy/sell decisions
   D. Taking decisions regarding holding investments

5. According to the IASB Conceptual Framework which of the following are objectives of financial statements?
   I. Enabling investors to make decisions about whether to buy, hold or sell equity
   II. Enabling suppliers to assess whether to provide credit to a company
   A. I only
   B. II only
   C. Both I and II
   D. Neither I nor II

6. One of the main purposes of the IFRS Interpretations Committee is to:
   A. add topics to the IASB's work agenda
   B. advise the IASB on the setting of standards
   C. police the application of accounting standards
   D. provide advice and guidance on accounting for emerging issues
7 Which of the following statements is true?

A  The IASB appoints the Trustees of the IFRS Foundation.
B  The IFRS Foundation develops and issues Interpretations.
C  The IFRS Interpretations Committee oversees the work of the IFRS Foundation.
D  The IFRS Advisory Council assists and advises the IASB in the process of developing IFRSs.

8 The International Financial Reporting Standards Foundation is

A  a body which must approve all new accounting standards before they are issued
B  a body which oversees the work of the IASB, IFRS Advisory Council and IFRS Interpretations Committee and organises their funding
C  a body whose main aim is to enforce the use of international GAAP throughout the world
D  the body which funds the development of new IFRSs
1 C Remember you were asked for the main aim.
2 A The International Accounting Standards Committee is the old name of the IASB; the IASB is overseen by and accountable to the IFRS Foundation.
3 B Although the shareholder needs to know the future prospects, he also needs to know that the current position of the company is secure. Similarly, the supplier needs to know the future prospects to ensure that he will be paid.
4 A An entity’s ability to repay is normally the main concern of lenders and suppliers rather than investors.
5 C The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.
6 D The IFRS Interpretations Committee provides guidance on the accounting treatment of emerging issues and also deals with conflicting interpretations of existing standards.
7 D The IFRS Foundation appoints the members of the IASB; the IFRS Interpretations Committee issues Interpretations; and the IFRS Foundation oversees the work of the IFRS Interpretations Committee.
8 B The IFRS Foundation organises the funding of the IASB, although it does not itself fund the development of new standards. The IFRS Foundation and the IASB aim to promote and facilitate the use of International GAAP, but have no power to enforce its use.
### Answers to chapter questions

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<td>B</td>
<td>Financial reporting is carried out by all businesses, no matter what their size or structure.</td>
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<td>A</td>
<td>Customers need to know that the business is making sufficient profits to be a secure source of supply.</td>
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Chapter 2

The conceptual framework and accounting policies

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<tr>
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**Topic list**

1. A conceptual framework
2. The IASB’s Conceptual Framework – an introduction
3. The Conceptual Framework – objective of general purpose financial reporting
4. The Conceptual Framework – qualitative characteristics of financial statements
5. The Conceptual Framework – the underlying assumption
6. The Conceptual Framework – elements of financial statements
7. The Conceptual Framework – recognition of the elements of financial statements
8. The Conceptual Framework – measurement of the elements of financial statements
9. Fair presentation and compliance with IFRS
10. IAS 8 Accounting policies, changes in accounting estimates and errors
The IASB’s document *Conceptual Framework for Financial Reporting* sets out and explains the principles and concepts that underpin IFRSs. IAS 8 *Accounting policies, changes in accounting estimates and errors* explains how an entity should select and apply accounting policies.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

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<td>12. How is a change in accounting estimate accounted for?</td>
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1 A conceptual framework

Section overview

A conceptual framework is a statement of principles which provides the frame of reference for financial reporting.

1.1 The search for a conceptual framework

A conceptual framework is a statement of generally accepted theoretical principles which form the frame of reference for financial reporting.

These theoretical principles provide the basis for the development of new accounting standards and the evaluation of those already in existence.

The danger of not having a conceptual framework is demonstrated in the way some countries' standards have developed over recent years; standards tend to be produced in a haphazard manner. Where an agreed framework exists, the standard-setting body acts as an architect or designer, rather than a 'fire-fighter', building accounting rules on the foundation of sound, agreed basic principles.

The lack of a conceptual framework also means that fundamental principles are dealt with more than once in different standards, thereby producing contradictions and inconsistencies between those standards.

Another problem with the lack of a conceptual framework has become apparent in the USA. The large number of highly detailed standards produced by the Financial Accounting Standards Board (FASB) has created a financial reporting environment governed by specific rules rather than general principles. Companies may 'follow the rule' rather than the spirit of a standard and so avoid reporting certain transactions. Equally, some companies may structure transactions deliberately in order to evade the rules.

1.2 Advantages and disadvantages of a conceptual framework

Advantages

(a) The situation is avoided whereby standards are developed on a piecemeal basis as a reaction to a particular accounting problem which has emerged. In this situation, resources may be channelled into standardising accounting practice in that area, without regard to whether that particular issue is necessarily the most important issue at that time. Standards developed from a conceptual framework are generally more logical and consistent with each other.

(b) The development of certain standards (particularly national standards) has been subject to considerable political interference from interested parties. Where there is a conflict of interest between user groups on which policies to choose, policies deriving from a conceptual framework will be less open to criticism than those where the standard-setter submitted to external pressure.

(c) The existence of a framework of principles means that it is much harder for preparers to avoid complying with reporting requirements. Rules can be avoided, but preparers must apply the 'spirit' and reasoning behind standards based on principles.

(d) A conceptual framework provides principles that can be applied where there is no relevant accounting standard or other guidance.

Disadvantages

(a) Financial statements are intended for a variety of users, and it is not certain that a single conceptual framework can be devised which will suit all users.

(b) Given the diversity of user requirements, there may be a need for a variety of accounting standards, each produced for a different purpose (and with different concepts as a basis).

(c) It is not clear that a conceptual framework makes the task of preparing and then implementing standards any easier than without a framework.
The conceptual framework and accounting policies

2 The IASB's Conceptual Framework – an introduction

Section overview

- The Conceptual Framework provides the conceptual framework for the development of IFRSs and IASs.

The Conceptual Framework is, in effect, the theoretical framework upon which all IFRSs are based. It determines how financial statements are prepared and the information they contain.

The Conceptual Framework consists of several sections or chapters, following on after an introduction. These chapters are as follows:

- The objective of general purpose financial reporting
- Qualitative characteristics of useful financial information
- Underlying assumption
- The elements of financial statements
- Recognition of the elements of financial statements
- Measurement of the elements of financial statements
- Concepts of capital and capital maintenance.

We will look briefly at the preface and introduction to the Conceptual Framework as these will place the document in context, and in particular the context of the Conceptual Framework in the IASB's approach to developing IFRSs.

2.1 Introduction

The introduction to the Conceptual Framework points out the fundamental reason why financial statements are produced worldwide, i.e. to satisfy the requirements of external users, but that practice varies due to the individual pressures in each country. These pressures may be social, political, economic or legal, but they result in variations in practice from country to country, including the form of statements, the definition of their component parts (assets, liabilities and so on), the criteria for recognition of items and both the scope and disclosure of financial statements.

The IASB wishes to narrow these differences by harmonising all aspects of financial statements.

The preface emphasises the way financial statements are used to make economic decisions. The types of economic decisions for which financial statements are likely to be used include the following:

- Decisions to buy, hold or sell equity investments
- Assessment of management stewardship and accountability
- Assessment of the entity’s ability to pay employees
- Assessment of the security of amounts lent to the entity
- Determination of taxation policies
- Determination of distributable profits and dividends
- Inclusion in national income statistics
- Regulations of the activities of entities.

Any additional requirements imposed by national governments for their own purposes should not affect financial statements produced for the benefit of other users.

The Conceptual Framework recognises that financial statements can be prepared using a variety of models. Although the most common is based on historical cost and a nominal unit of currency (e.g. pound sterling, Australian dollar and so on), the Conceptual Framework can be applied to financial statements prepared under a range of models.
2.2 Purpose and status
The purpose of the Conceptual Framework is to:

(a) Assist the IASB in the development of future IFRSs and in its review of existing IFRSs.
(b) Assist the IASB in promoting harmonisation of regulations, accounting standards and procedures relating to the presentation of financial statements by providing a basis for reducing the number of alternative accounting treatments permitted by IFRSs.
(c) Assist national standard-setting bodies in developing national standards.
(d) Assist preparers of financial statements in applying IFRSs and in dealing with topics that have yet to form the subject of an IFRS.
(e) Assist auditors in forming an opinion as to whether financial statements comply with IFRSs.
(f) Assist users of financial statements in interpreting the information contained in financial statements prepared in compliance with IFRSs.
(g) Provide those who are interested in the work of IASB with information about its approach to the formulation of IFRSs.

The Conceptual Framework itself is not an IFRS and so does not overrule any individual IFRS. In the (rare) cases of conflict between an IFRS and the Conceptual Framework, the IFRS will prevail. These cases will diminish over time as the Conceptual Framework will be used as a guide in the production of future IFRSs. The Conceptual Framework itself will be revised occasionally depending on the experience of the IASB in using it.

2.3 Scope
The Conceptual Framework deals with:

(a) The objective of financial reporting.
(b) The qualitative characteristics of useful financial information.
(c) The definition, recognition and measurement of the elements from which financial statements are constructed.
(d) Concepts of capital and capital maintenance.

The Conceptual Framework is concerned with general purpose financial reporting. The term is not defined or discussed in the Conceptual Framework, but generally means a normal set of annual financial statements or published annual report available to users outside the reporting entity.

3 The Conceptual Framework – objective of general purpose financial reporting

Section overview
- The Conceptual Framework states that:

'\text{The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity.}'

LO 1.1
These decisions involve buying, selling or holding equity shares and debt instruments (such as loan stock or debentures) and providing or settling loans and other forms of credit.

Investors and lenders must normally rely on general purpose financial reports for most of the financial information that they need. Therefore they are the primary users to which general purpose financial reports are directed.
General purpose financial reports cannot provide all the information that investors, lenders and other creditors need. They **may also need to consider** relevant **information from other sources**, for example, general economic conditions and expectations, political events and information about the industry in which the company operates.

The **Conceptual Framework** explains that other users, such as regulators and members of the public may also find general purpose financial reports useful. However, financial reports are not primarily prepared for these groups of users.

### 3.1 Economic resources, claims and changes in resources and claims

Financial reports provide information about the **financial position** of an entity:

(a) its economic resources; and

(b) the claims against it.

They also provide information about **changes** in an entity’s economic resources and claims.

Information about the entity’s economic resources and the claims against it helps users to assess the entity’s **liquidity** and **solvency**, and its needs for additional finance and how successful it is likely to be in obtaining it.

#### Definitions

**Liquidity.** The availability of sufficient funds to meet short-term financial commitments as they fall due.

**Solvency.** The availability of cash over the longer term to meet financial commitments as they fall due.

**Changes** in an entity’s economic resources and claims result from its **financial performance** and also from other transactions and events such as the issue of shares or an increase in debt (borrowings).

Information about a reporting entity’s **financial performance** helps users to understand the **return** that the entity has produced on its economic resources. This is an indicator of how **efficiently and effectively** management has **used the resources of the entity** and is helpful in predicting future returns.

Information about an entity’s financial performance helps users to assess the entity’s past and future **ability to generate net cash inflows from its operations**.

Financial information should be prepared using **accrual accounting**. Information about an entity’s economic resources and claims and changes in these during a period is more useful in assessing an entity’s past and future performance than information based solely on cash receipts and payments during that period.

#### Definition

**Accrual accounting.** Depicts the effects of transactions and other events and circumstances on a reporting entity’s economic resources and claims in the periods in which those effects occur, even if the resulting cash receipts and payments occur in a different period. *(Conceptual Framework)*

Information about a reporting entity’s **cash flows** during a period also helps users assess the entity’s ability to generate future net cash inflows and provides information about factors that may affect its liquidity or solvency. It also gives users a better understanding of the entity’s operations and of its financing and investing activities.
4 The Conceptual Framework – qualitative characteristics of financial statements

Section overview

Quality characteristics are the attributes that make the information provided in financial statements useful to users.

There are two fundamental qualitative characteristics: relevance and faithful representation. Information must possess these characteristics in order to be useful.

There are four enhancing qualitative characteristics: comparability, verifiability, timeliness and understandability. These qualities enhance the usefulness of financial information.

4.1 Relevance

Relevant financial information has predictive value, confirmatory value, or both.

Definition

Relevance. Relevant financial information is capable of making a difference in the decisions made by users.

(Conceptual Framework)

Information on financial position and performance is often used to predict future position and performance and other things of interest to the user, e.g. likely dividend, wage rises. Financial information is also used to confirm (or change) users’ past conclusions about an entity’s financial performance or financial position.

Information can have both predictive value and confirmatory value. For example, revenue for the current year can be used to predict revenue for next year. Actual revenue for the current year can also be compared with expected revenue that was predicted using last year’s financial statements.

4.1.1 Materiality

The relevance of information is affected by its materiality.

Definition

Materiality. Information is material if omitting it or misstating it could influence decisions that users make on the basis of financial information about a specific reporting entity.

(Conceptual Framework)

The Conceptual Framework explains that materiality is entity-specific. It depends on the nature or size (or both) of items taken in the context of an individual entity’s financial report.

Information may be judged relevant simply because of its nature (e.g. remuneration of management), even though the amounts involved may be small in relation to the financial statements as a whole. In other cases, both the nature and materiality of the information are important. Materiality is not a primary qualitative characteristic itself because it is merely a threshold or cut-off point.

4.2 Faithful representation

To be useful, financial information must faithfully represent the economic phenomena that it purports to represent. The user must be able to depend on it being a faithful representation.
Definitions

Faithful representation. A faithful representation is complete, neutral and free from error.

A complete depiction includes all the information necessary for a user to understand the phenomenon being depicted, including all necessary descriptions and explanations.

A neutral depiction is without bias in the selection or presentation of financial information. This means that information must not be manipulated in any way in order to influence the decisions of users.

Free from error means there are no errors or omissions in the description of the phenomenon and no errors made in the process by which the financial information was produced. It does not mean that no inaccuracies can arise, particularly where estimates have to be made.

(Conceptual Framework)

4.3 Comparability

Comparability is the qualitative characteristic that enables users to identify and understand similarities in, and differences among, items. Information about a reporting entity is more useful if it can be compared with similar information about other entities and with similar information about the same entity for another period or another date.

The consistency of treatment is therefore important across like items over time, within the entity and across all entities.

The disclosure of accounting policies is particularly important here. Users must be able to distinguish between different accounting policies in order to be able to make a valid comparison of similar items in the accounts of different entities.

Comparability is not the same as uniformity. Entities should change accounting policies if they become inappropriate.

Corresponding information for preceding periods should be shown to enable comparison over time.

4.4 Verifiability

Verifiability helps assure users that information faithfully represents the economic phenomena it purports to represent.

Verifiability means that different knowledgeable and independent observers could reach consensus (not necessarily complete agreement) that a particular depiction is a faithful representation.

4.5 Timeliness

Timeliness means having information available to users in time to be capable of influencing their decisions.

Generally, the older the information is, the less useful it is. However, older financial information may still be useful for identifying and assessing trends (for example, growth in profits over a number of years).

4.6 Understandability

Classifying, characterising and presenting information clearly and concisely makes it understandable.

Some information is inherently complex and difficult to understand. Excluding this information from the financial statements would make them more understandable, but they would also be incomplete and potentially misleading.

Financial reports are prepared for users who have a reasonable knowledge of business and economic activities and who review and analyse the information diligently. Users may sometimes need to seek help from an adviser in order to understand information about complex economic phenomena.
4.7 Applying the qualitative characteristics

Information must be both relevant and faithfully represented if it is to be useful. In practice, an entity must often find a balance between the two, with the aim of presenting the most relevant information that can be faithfully represented.

The same principle applies to the enhancing qualitative characteristics. Sometimes, one characteristic may have to be diminished in order to maximise another. For example, applying a new standard may reduce comparability in the short term, but may improve relevance or faithful representation in the longer term.

4.8 The cost constraint on useful financial reporting

Cost is a pervasive constraint on the information that can be provided by financial reporting. The Conceptual Framework explains that it is important that the costs of reporting financial information are justified by the benefits.

The IASB takes this into account when developing standards. It considers costs and benefits in relation to financial reporting generally, not just in relation to individual entities. Different reporting requirements for different reporting entities may be appropriate in some circumstances. For example, the IASB has recently developed a special standard for small and medium sized entities.

5 The Conceptual Framework – the underlying assumption

5.1 Going concern

Definition

Going concern. The entity is normally viewed as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the entity has neither the intention nor the need to liquidate or curtail materially the scale of its operations. (Conceptual Framework)

If the entity did intend or need to liquidate or curtail its major operations, then the financial statements might have to be prepared on a different basis and that basis disclosed.

6 The Conceptual Framework – elements of financial statements

Section overview

- Transactions and other events are grouped together in broad classes and in this way their financial effects are shown in the financial statements. These broad classes are the elements of financial statements.
The Conceptual Framework lays out these elements as follows.

IFRSs use the titles statement of financial position and statement of profit or loss and other comprehensive income for the two financial statements above. In practice, the statement of financial position is sometimes called the balance sheet and the statement of profit and loss and other comprehensive income may also be called the profit and loss account, the income statement, or the statement of comprehensive income.

A process of sub-classification then takes place for presentation in the financial statements, e.g. assets are classified by their nature or function in the business to show information in the best way for users to take economic decisions.

6.1 Financial position

We need to define the three terms listed under this heading in the diagram above.

Definitions

Asset. A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity.

Liability. A present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

Equity. The residual interest in the assets of the entity after deducting all its liabilities.

(Conceptual Framework)

These definitions are important, but they do not cover the criteria for recognition of any of these items, which are discussed in the next section of this chapter. This means that the definitions may include items which would not actually be recognised in the statement of financial position because they fail to satisfy recognition criteria particularly, as we will see below, the probable flow of any economic benefit to or from the business.

Whether an item satisfies any of the definitions above will depend on the substance and economic reality of the transaction, not merely its legal form.

6.1.1 Assets

We can look in more detail at the components of the definitions given above.

Definition

Future economic benefit. The potential to contribute, directly or indirectly, to the flow of cash and cash equivalents to the entity. The potential may be a productive one that is part of the operating activities of
the entity. It may also take the form of convertibility into cash or cash equivalents or a capability to reduce cash outflows, such as when an alternative manufacturing process lowers the cost of production.

(Conceptual Framework)

Assets are usually employed to produce goods or services for customers; customers will then pay for these. Cash itself renders a service to the entity due to its command over other resources.

The existence of an asset, particularly in terms of control, is not reliant on:

(a) Physical form (hence patents and copyrights); nor
(b) Legal rights (hence leases).

Transactions or events in the past give rise to assets; those expected to occur in the future do not in themselves give rise to assets. For example, an intention to purchase a non-current asset does not, in itself, meet the definition of an asset.

6.1.2 Liabilities

Again we can look more closely at some aspects of the definition. An essential characteristic of a liability is that the entity has a present obligation.

Definition

Obligation. A duty or responsibility to act or perform in a certain way. Obligations may be legally enforceable as a consequence of a binding contract or statutory requirement. Obligations also arise, however, from normal business practice, custom and a desire to maintain good business relations or act in an equitable manner. (Conceptual Framework)

It is important to distinguish between a present obligation and a future commitment. A management decision to purchase assets in the future does not, in itself, give rise to a present obligation.

Settlement of a present obligation will involve the entity giving up resources embodying economic benefits in order to satisfy the claim of the other party. This may be done in various ways, not just by payment of cash.

Liabilities must arise from past transactions or events. In the case of, say, recognition of future rebates to customers based on annual purchases, the sale of goods in the past is the transaction that gives rise to the liability.

Is a provision a liability?

Definition

Provision. A present obligation which satisfies the rest of the definition of a liability, even if the amount of the obligation has to be estimated. (Conceptual Framework)

Question 1: Asset or liability?

Consider the following situations. In each case, do we have an asset or liability within the definitions given by the Conceptual Framework? Give reasons for your answer.

(a) Pat Co has purchased a patent for $20 000. The patent gives the company sole use of a particular manufacturing process which will save $3 000 a year for the next five years.

(b) Baldwin Co paid Don Brennan $10 000 to set up a car repair shop, on condition that priority treatment is given to cars from the company’s fleet.

(c) Deals on Wheels Co provides a warranty with every car sold.

(The answer is at the end of the chapter)
6.1.3 Equity

Equity is defined above as a residual: an entity’s assets less its liabilities. Therefore the amount shown for equity depends on the recognition and measurement of assets and liabilities. It has nothing to do with the market value of the entity’s shares.

Equity must be sub-classified in the statement of financial position. This indicates legal or other restrictions on the ability of the entity to distribute (pay out as dividends) or otherwise use its equity. Some reserves are required by law, e.g. for the future protection of creditors.

6.2 Performance

Profit is used as a measure of performance, or as a basis for other measures. It depends directly on the measurement of income and expenses, which in turn depend (in part) on the concepts of capital and capital maintenance adopted.

The elements of income and expense are therefore defined.

Definitions

**Income.** Increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

**Expenses.** Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrences of liabilities that result in decreases in equity, other than those relating to distributions to equity participants. (Conceptual Framework)

Income and expenses can be presented in different ways in the statement of profit or loss and other comprehensive income, to provide information relevant for economic decision-making. This is considered in more detail in the next chapter.

Items of income and expense can be distinguished from each other or combined with each other.

6.2.1 Income

Both revenue and gains are included in the definition of income. Revenue arises in the course of ordinary activities of an entity.

Definition

**Gains.** Increases in economic benefits. As such they are no different in nature from revenue. (Conceptual Framework)

Gains include those arising on the disposal of non-current assets. The definition of income also includes unrealised gains, e.g. on revaluation of marketable securities.

6.2.2 Expenses

As with income, the definition of expenses includes losses as well as those expenses that arise in the course of ordinary activities of an entity.

Definition

**Losses.** Decreases in economic benefits. As such they are no different in nature from other expenses. (Conceptual Framework)

Losses will include those arising on the disposal of non-current assets. The definition of expenses will also include unrealised losses, e.g. exchange rate effects on borrowings.
6.3 Capital maintenance adjustments

A revaluation results in an increase or decrease in equity.

Definition

Revaluation. Restatement of assets and liabilities, giving rise to increases or decreases in equity.

(Conceptual Framework)

These increases and decreases meet the definitions of income and expenses. They are not included in profit or loss under certain concepts of capital maintenance, however, but rather in equity. This is explained in more detail in the next chapter.

7 The Conceptual Framework – recognition of the elements of financial statements

Section overview

- Items which meet the definition of assets or liabilities may still not be recognised in financial statements because they must also meet certain recognition criteria.

Definition

Recognition. The process of incorporating in the statement of financial position or statement of profit or loss and other comprehensive income an item that meets the definition of an element and satisfies the following criteria for recognition:

(a) It is probable that any future economic benefit associated with the item will flow to or from the entity; and

(b) The item has a cost or value that can be measured with reliability.

(Conceptual Framework)

Regard must be given to materiality (see Section 4 above).

7.1 Probability of future economic benefits

Probability here means the degree of uncertainty that the future economic benefits associated with an item will flow to or from the entity. This must be judged on the basis of the characteristics of the entity's environment and the evidence available when the financial statements are prepared.

7.2 Reliability of measurement

The cost or value of an item, in many cases, must be estimated. The Conceptual Framework states, however, that the use of reasonable estimates is an essential part of the preparation of financial statements and does not undermine their reliability. Where no reasonable estimate can be made, the item should not be recognised, although its existence should be disclosed in the notes, or other explanatory material.

Items may still qualify for recognition at a later date due to changes in circumstances or subsequent events.
7.3 Recognition of items

We can summarise the recognition criteria for assets, liabilities, income and expenses, based on the definition of recognition given above.

<table>
<thead>
<tr>
<th>Item</th>
<th>Recognised in</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset</td>
<td>The statement of financial position</td>
<td>It is probable that the future economic benefits will flow to the entity and the asset has a cost or value that can be measured reliably.</td>
</tr>
<tr>
<td>Liability</td>
<td>The statement of financial position</td>
<td>It is probable that an outflow of resources embodying economic benefits will result from the settlement of a present obligation and the amount at which the settlement will take place can be measured reliably.</td>
</tr>
<tr>
<td>Income</td>
<td>The statement of profit or loss and other comprehensive income</td>
<td>An increase in future economic benefits related to an increase in an asset or a decrease of a liability has arisen that can be measured reliably.</td>
</tr>
<tr>
<td>Expenses</td>
<td>The statement of profit or loss and other comprehensive income</td>
<td>A decrease in future economic benefits related to a decrease in an asset or an increase of a liability has arisen that can be measured reliably.</td>
</tr>
</tbody>
</table>

8 The Conceptual Framework – measurement of the elements of financial statements

Section overview

- A number of different measurement bases are used in financial statements. They include:
  - Historical cost
  - Current cost
  - Realisable (settlement) value
  - Present value of future cash flows.

Measurement is defined as follows:

**Definition**

**Measurement.** The process of determining the monetary amounts at which the elements of the financial statements are to be recognised and carried in the statement of financial position and statement of profit or loss and other comprehensive income. 

(this involves the selection of a particular **basis of measurement**. A number of these are used to different degrees and in varying combinations in financial statements. They include the following:

**Definitions**

**Historical cost.** Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation, or in some circumstances (for example, income taxes), at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business.

**Current cost.** Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently.
Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.

**Realisable (settlement) value.**

- **Realisable value.** The amount of cash or cash equivalents that could currently be obtained by selling an asset in an orderly disposal.
- **Settlement value.** The undiscounted amounts of cash or cash equivalents expected to be paid to satisfy the liabilities in the normal course of business.

**Present value.** A current estimate of the present discounted value of the future net cash flows in the normal course of business. *(Conceptual Framework)*

**Historical cost** is the most commonly adopted measurement basis, but this is usually combined with other bases, e.g. inventory is carried at the lower of cost and net realisable value.

## 9 Fair presentation and compliance with IFRS

Most importantly, financial statements should **present fairly** the financial position, financial performance and cash flows of an entity. **Compliance with IFRS** is presumed to result in financial statements that achieve a fair presentation.

The following points made by IAS 1 expand on this principle:

(a) If an entity has **complied with IFRS**, it should disclose that fact in its financial statements.

(b) **All relevant IFRS** must be followed if compliance with IFRS is disclosed.

(c) Use of an **inappropriate accounting treatment** cannot be rectified either by disclosure of accounting policies or notes/explanatory material.

There may be (very rare) circumstances when management decides that compliance with a requirement of an IFRS would be misleading. **Departure from the IFRS** is therefore required to achieve a fair presentation. The following should be disclosed in such an event:

(a) Management confirmation that the financial statements fairly present the entity’s financial position, performance and cash flows.

(b) A statement that all IFRS have been complied with except departure from one IFRS to achieve a fair presentation.

(c) Details of the nature of the departure, why the IFRS treatment would be misleading, and the treatment adopted.

(d) Financial impact of the departure.

This is sometimes referred to as the 'true and fair override' or the 'fair presentation' override. Not all jurisdictions allow the use of the 'true and fair' override. For example, in Australia, preparers of financial statements are not permitted to depart from any of the requirements of accounting standards. Instead, the financial statements must disclose additional information.

### 9.1 Extreme case disclosures

In very rare circumstances, management may conclude that compliance with a requirement in a Standard or Interpretation may be so **misleading** that it would **conflict with the objective** of financial statements set out in the **Conceptual Framework**, but the relevant regulatory framework prohibits departure from the requirements. In such cases the entity needs to reduce the perceived misleading aspects of compliance by disclosing:

(a) The title of the Standard, the nature of the requirement and the reason why management has reached its conclusion.

(b) For each period, the adjustment to each item in the financial statements that would be necessary to achieve fair presentation.
Fair presentation requires an entity:

- to select and apply **appropriate accounting policies**
- to **present information** in a manner that results in relevant, reliable, comparable and understandable information
- to **provide additional disclosures** where these are necessary to enable users to understand the impact of transactions and events on an entity's financial performance and position

10 IAS 8 **Accounting policies, changes in accounting estimates and errors**

**Section overview**

- IAS 8 deals with the treatment of changes in accounting estimates, changes in accounting policies and errors.

10.1 **Definitions**

The following definitions are given in the Standard:

**Definitions**

**Accounting policies** are the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements.

A **change in accounting estimate** is an adjustment of the carrying amount of an asset or a liability or the amount of the periodic consumption of an asset, that results from the assessment of the present status of, and expected future benefits and obligations associated with, assets and liabilities. Changes in accounting estimates result from new information or new developments and, accordingly, are not corrections of errors.

**Material**: Omissions or misstatements of items are **material** if they could, individually or collectively, influence the economic decisions that users make on the basis of the financial statements. (This is very similar to the definition in the Conceptual Framework.)

**Prior period errors** are omissions from, and misstatements in, the entity’s financial statements for one or more prior periods arising from a failure to use, or misuse of, reliable information that:

- Was available when financial statements for those periods were authorised for issue, and
- Could reasonably be expected to have been obtained and taken into account in the preparation and presentation of those financial statements.

Such errors include the effects of mathematical mistakes, mistakes in applying accounting policies, oversights or misinterpretations of facts, and fraud.

**Retrospective application** is applying a new accounting policy to transactions, other events and conditions as if that policy had always been applied.

**Retrospective restatement** is correcting the recognition, measurement and disclosure of amounts of elements of financial statements as if a prior period error had never occurred.

**Prospective application** of a change in accounting policy and of recognising the effect of a change in an accounting estimate, respectively, are:

- Applying the new accounting policy to transactions, other events and conditions occurring after the date at which the policy is changed; and
- Recognising the effect of the change in the accounting estimate in the current and future periods affected by the change.
Impracticable – Applying a requirement is impracticable when the entity cannot apply it after making every reasonable effort to do so. It is impracticable to apply a change in an accounting policy retrospectively or to make a retrospective restatement to correct an error if one of the following apply:

- The effects of the retrospective application or retrospective restatement cannot be determined.
- The retrospective application or retrospective restatement requires assumptions about what management’s intent would have been in that period.
- The retrospective application or retrospective restatement requires significant estimates of amounts and it is impossible to distinguish objectively information about those estimates that:
  - provides evidence of circumstances that existed on the date(s) at which those amounts are to be recognised, measured or disclosed; and
  - would have been available when the financial statements for that prior period were authorised for issue, from other information.

10.2 Accounting policies

Accounting policies are determined by applying the relevant IFRS or IFRIC and considering any relevant Implementation Guidance issued by the IASB for that IFRS/IFRIC.

Where there is no applicable IFRS or IFRIC management should use its judgment in developing and applying an accounting policy that results in information that is relevant and reliable. Reliable information:

(a) represents faithfully the entity’s financial position, financial performance and cash flows;
(b) reflects the economic substance of transactions, other events and conditions;
(c) is neutral;
(d) is prudent; and
(e) is complete in all material respects.

Management should refer to:

(a) The requirements of IFRSs and IFRICs dealing with similar and related issues.
(b) The definitions, recognition criteria and measurement concepts for assets, liabilities and expenses in the Conceptual Framework.

Management may also consider the most recent pronouncements of other standard-setting bodies that use a similar conceptual framework to develop Standards, other accounting literature and accepted industry practices if these do not conflict with the sources above.

An entity must select and apply its accounting policies for a period consistently for similar transactions, other events and conditions, unless an IFRS or an IFRIC specifically requires or permits categorisation of items for which different policies may be appropriate. If an IFRS or an IFRIC requires or permits categorisation of items, an appropriate accounting policy must be selected and applied consistently to each category.

10.3 Changes in accounting policies

Section overview

- Changes in accounting policy are normally applied retrospectively.

The same accounting policies are usually adopted from period to period, to allow users to analyse trends over time in profit, cash flows and financial position. Changes in accounting policy will therefore be unusual and should be made only if required by one of two things:

(a) By virtue of an IFRS.
(b) If the change will result in a more relevant and reliable presentation of events or transactions in the financial statements of the entity.
A change in accounting policy must be applied retrospectively. Retrospective application means that the new accounting policy is applied to transactions and events as if it had always been in use. In other words, at the earliest date such transactions or events occurred, the policy is applied from that date.

There is one important exception. Where an entity revalues assets for the first time this is treated as a revaluation under IAS 16 Property, plant and equipment, not as a change of accounting policy under IAS 8. Although this is a change in accounting policy, it is not applied retrospectively (see Chapter 5).

If, at the beginning of the current period, it is impracticable to determine the cumulative effect of applying a new accounting policy to prior periods, the entity should adjust the comparative information to apply the new accounting policy prospectively only.

### 10.3.1 Adoption of an IFRS

Where a new IFRS is adopted, IAS 8 requires any transitional provisions in the new IFRS itself to be followed. If none are given in the IFRS which is being adopted, then the general principles of IAS 8 should be followed.

### 10.3.2 Other changes in accounting policy

IAS 8 requires retrospective application, unless it is impracticable to determine the cumulative amount of change. Any resulting adjustment should be reported as an adjustment to the opening balance of retained earnings. Comparative information should be restated unless it is impracticable to do so.

This means that all comparative information must be restated as if the new policy had always been in force, with amounts relating to earlier periods reflected in an adjustment to opening reserves of the earliest period presented.

Certain disclosures are required when a change in accounting policy has a material effect on the current period or any prior period presented, or when it may have a material effect in subsequent periods:

(a) Reasons for the change.
(b) Amount of the adjustment for the current period and for each period presented.
(c) Amount of the adjustment relating to periods prior to those included in the comparative information.
(d) The fact that comparative information has been restated or that it is impracticable to do so.

An entity should also disclose information relevant to assessing the impact of new IFRS on the financial statements where these have not yet come into force.

### 10.4 Changes in accounting estimates

#### Section overview
- Changes in accounting estimate are not applied retrospectively.

Estimates arise in relation to business activities because of the uncertainties inherent within them. Judgments are made based on the most up to date information and the use of such estimates is a necessary part of the preparation of financial statements. It does not undermine their reliability. Here are some examples of accounting estimates:

(a) A necessary irrecoverable debt allowance.
(b) Useful lives of depreciable assets.
(c) Provision for obsolescence of inventory.

The rule here is that the effect of a change in an accounting estimate should be accounted for prospectively ie it should be included in the determination of net profit or loss in one of:

(a) The period of the change, if the change affects that period only.
(b) The period of the change and future periods, if the change affects both.
Changes may occur in the circumstances which were in force at the time the estimate was calculated, or perhaps additional information or subsequent developments have come to light.

An example of a change in accounting estimate which affects only the current period is the irrecoverable debt estimate. However, a revision in the life over which an asset is depreciated would affect both the current and future periods, in the amount of the depreciation expense.

Reasonably enough, the effect of a change in an accounting estimate should be included in the same expense classification as was used previously for the estimate. This rule helps to ensure consistency between the financial statements of different periods.

The materiality of the change is also relevant. The nature and amount of a change in an accounting estimate that has a material effect in the current period (or which is expected to have a material effect in subsequent periods) should be disclosed. If it is not possible to quantify the amount, this impracticability should be disclosed.

10.5 Errors

Section overview

- Material prior period errors must be corrected retrospectively.

Errors discovered during a current period which relate to a prior period may arise through:

(a) Mathematical mistakes
(b) Mistakes in the application of accounting policies
(c) Misinterpretation of facts
(d) Oversights
(e) Fraud.

Most of the time these errors can be corrected through net profit or loss for the current period. Where they are material prior period errors, however, this is not appropriate.

10.5.1 Accounting treatment

Material prior period errors must be corrected retrospectively.

This involves:

(a) Either restating the comparative amounts for the prior period(s) in which the error occurred, or
(b) When the error occurred before the earliest prior period presented, restating the opening balances of assets, liabilities and equity for that period

so that the financial statements are presented as if the error had never occurred.

Only where it is impracticable to determine the cumulative effect of an error on prior periods can an entity correct an error prospectively only.

Various disclosures are required:

(a) The nature of the prior period error.
(b) For each prior period, to the extent practicable, the amount of the correction:
   (i) For each financial statement line item affected.
   (ii) For basic and diluted earnings per share (if disclosed).
(c) The amount of the correction at the beginning of the earliest prior period presented.
(d) If retrospective restatement is impracticable for a particular prior period, the circumstances that led to the existence of that condition and a description of how and from when the error has been corrected. Subsequent periods need not repeat these disclosures.
### Question 2: Error

During 20X7 Global discovered that certain items had been included in inventory at 31 December 20X6, valued at $4.2m, which had in fact been sold before the year end. The following figures for 20X6 (as reported) and 20X7 (draft) are available.

<table>
<thead>
<tr>
<th></th>
<th>20X6</th>
<th>20X7 (draft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$47,400</td>
<td>$67,200</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>(34,570)</td>
<td>(55,800)</td>
</tr>
<tr>
<td>Profit before taxation</td>
<td>12,830</td>
<td>11,400</td>
</tr>
<tr>
<td>Income taxes</td>
<td>(3,880)</td>
<td>(3,400)</td>
</tr>
<tr>
<td>Profit for the period</td>
<td>8,950</td>
<td>8,000</td>
</tr>
</tbody>
</table>

Retained earnings at 1 January 20X6 were $13m. The cost of goods sold for 20X7 includes the $4.2m error in opening inventory. The income tax rate was 30% for 20X6 and 20X7. No dividends have been declared or paid.

**Required**

Show the statement of profit or loss and other comprehensive income for 20X7, with the 20X6 comparative, and retained earnings.

(The answer is at the end of the chapter)
Key chapter points

- A conceptual framework is a statement of principles which provides the frame of reference for financial reporting.
- The IASB’s Conceptual Framework provides the theoretical framework for the development of IFRSs.
- The Conceptual Framework provides the basic principles on which new and improved international accounting standards are based.
- The Conceptual Framework states that ‘The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity’.
- Qualitative characteristics are the attributes that make the information provided in financial statements useful to users.
  - The fundamental qualitative characteristics are: relevance and faithful representation.
  - The enhancing qualitative characteristics are: comparability; verifiability; timeliness; and understandability.
- Going concern is the underlying assumption identified by the Conceptual Framework in preparing financial statements.
- The elements of financial statements shown in the statement of financial position are assets, liabilities and equity.
- The elements of financial statements shown in the statement of profit or loss and other comprehensive income are income and expenses.
- Elements of the financial statements are recognised when the recognition criteria of the Conceptual Framework are met.
- A number of different measurement bases are used in financial statements. They include:
  - Historical cost
  - Current cost
  - Realisable (settlement) value
  - Present value of future cash flows.
- IAS 8 deals with the treatment of changes in accounting estimates, changes in accounting policies and errors.
- Accounting policies are the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements.
- A change in accounting policy is only allowed where it is required by legislation, by an accounting standard or will result in more appropriate presentation.
- A change in accounting policy is normally applied retrospectively.
- A change in accounting estimate is applied prospectively.
- A prior period error is corrected retrospectively.
Quick revision questions

1. According to the Conceptual Framework, which of the following is the underlying assumption relating to financial statements?
   A. The information is free from material error or bias.
   B. The accounts have been prepared on an accruals basis.
   C. The business is expected to continue in operation for the foreseeable future.
   D. Users are assumed to have sufficient knowledge to be able to understand the financial statements.

2. Which two of the following are not elements of financial statements per the Conceptual Framework?
   I. Profits
   II. Assets
   III. Income
   IV. Equity
   V. Losses
   VI. Expenses
   A. I and V only
   B. II and IV only
   C. III and IV only
   D. V and VI only

3. Listed below are some characteristics of financial information.
   I. Neutrality
   II. Verifiability
   III. Understandability
   IV. Timeliness

   Which of these are enhancing qualitative characteristics, according to the IASB’s Conceptual Framework for Financial Reporting?
   A. I, II and III only
   B. I, II and IV only
   C. I, III and IV only
   D. II, III and IV only

4. Listed below are some comments on accounting concepts and useful financial information.
   I. Financial information prepared using accrual accounting provides a better basis for assessing an entity's performance than information based only on cash flows.
   II. Materiality means that only items having a physical existence may be recognised as assets.
   III. A faithful representation of financial information can never include amounts based on estimates.

   Which, if any, of these comments is correct, according to the IASB’s Conceptual Framework for Financial Reporting?
   A. I only
   B. II only
   C. III only
   D. None of the above
5. Which of the following constitute a change of accounting policy according to IAS 8 *Accounting policies, changes in accounting estimates and errors*?

I. A change in the basis of valuing inventory
II. A change in depreciation method
III. A decision to capitalise borrowing costs relating to the construction of non-current assets, rather than writing them off as incurred
IV. Adopting an accounting policy for a new type of transaction not previously dealt with

A. I and II only
B. I and III only
C. II and III only
D. II and IV only

6. Which of the following items would qualify for treatment as a change in accounting estimate, according to IAS 8 (revised) *Accounting policies, changes in accounting estimates and errors*?

I. Provision for obsolescence of inventory
II. Correction necessitated by a material error
III. A change as a result of the adoption of a new International Accounting Standard
IV. A change in the useful life of a non-current asset

A. I and III only
B. I and IV only
C. II and III only
D. I, II, III and IV

7. An asset has to meet two recognition criteria before being recognised in financial statements. One of these is the probability that future economic benefits will flow to the entity. The other criterion is

A. the asset has a cost or value that can be measured reliably
B. the asset has an open market value
C. the future economic benefits can be reliably measured
D. the future economic benefits will be received within the current accounting period

8. Which of the following statements is/are true?

I. The *Conceptual Framework* assists in the harmonisation of accounting standards and procedures.
II. The *Conceptual Framework* overrides the requirements of an accounting standard where conflict exists.
III. The *Conceptual Framework* identifies two fundamental qualitative characteristics of financial information.

A. I only
B. I and III only
C. II and III only
D. I, II, and III

9. According to the *Conceptual Framework*, what are the two fundamental qualitative characteristics of financial information?

A. Comparability and faithful representation
B. Faithful representation and relevance
C. Relevance and understandability
D. Relevance and verifiability

10. Which of the following is the measurement basis most commonly adopted by entities in preparing financial information, according to the *Conceptual Framework*?

A. Current cost
B. Historical cost
C. Present value
D. Realisable value
## Answers to quick revision questions

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C</td>
<td>The underlying assumption is going concern.</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>The elements of financial statements are assets, liabilities and equity in the statement of financial position and income and expenses in the statement of profit or loss and other comprehensive income. Profits and losses are not elements.</td>
</tr>
<tr>
<td>3</td>
<td>D</td>
<td>Understandability, verifiability and timeliness. The fourth is comparability.</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>Materiality concerns whether an item in the financial statements can influence users decisions. A faithful representation must be free from error, but this does not mean perfectly accurate in all respects.</td>
</tr>
<tr>
<td>5</td>
<td>B</td>
<td>II is a change of accounting estimate, IV is specifically mentioned in IAS 8 as not constituting a change of accounting policy.</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>Material errors are treated in the same way as changes of accounting policy. They are corrected retrospectively, so that the financial statements are presented as if the error had never occurred.</td>
</tr>
<tr>
<td>7</td>
<td>A</td>
<td>An asset is recognised when it is probable that economic benefits will flow to an entity and the asset can be measured reliably. The timing and measurement of the future economic benefits are irrelevant, and the measurement of the asset is generally by reference to cost, rather than an open market value.</td>
</tr>
<tr>
<td>8</td>
<td>B</td>
<td>Where there is conflict between the Conceptual Framework and a Standard, the Standard prevails.</td>
</tr>
<tr>
<td>9</td>
<td>B</td>
<td>Comparability, understandability and verifiability are all enhancing qualitative characteristics. (The fourth enhancing qualitative characteristic is timeliness.)</td>
</tr>
<tr>
<td>10</td>
<td>B</td>
<td>Historical cost is the most common measurement basis.</td>
</tr>
</tbody>
</table>
### Answers to chapter questions

1. **(a)** This is an intangible asset. There is a past event, control and future economic benefit (through cost savings).

   **(b)** This cannot be classified as an asset. Baldwin Co has no control over the car repair shop and it is difficult to argue that there are ‘future economic benefits’.

   **(c)** The warranty claims in total constitute a liability; the business has taken on an obligation. It would be recognised when the warranty is issued rather than when a claim is made.

2. **STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME**

<table>
<thead>
<tr>
<th></th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$47,400</td>
<td>$67,200</td>
</tr>
<tr>
<td>Cost of goods sold (W1)</td>
<td>(38,770)</td>
<td>(51,600)</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>8,630</td>
<td>15,600</td>
</tr>
<tr>
<td>Income tax (W2)</td>
<td>(2,620)</td>
<td>(4,660)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>6,010</td>
<td>10,940</td>
</tr>
</tbody>
</table>

**RETIRED EARNINGS**

<table>
<thead>
<tr>
<th></th>
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<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening retained earnings</td>
<td>$13,000</td>
<td>$21,950</td>
</tr>
<tr>
<td>As previously reported</td>
<td>13,000</td>
<td>21,950</td>
</tr>
<tr>
<td>Correction of prior period error (4,200 – 1,260)</td>
<td>–</td>
<td>(2,940)</td>
</tr>
<tr>
<td>As restated</td>
<td>13,000</td>
<td>19,010</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>6,010</td>
<td>10,940</td>
</tr>
<tr>
<td>Closing retained earnings</td>
<td>19,010</td>
<td>29,950</td>
</tr>
</tbody>
</table>

**Workings**

1. **Cost of goods sold**

<table>
<thead>
<tr>
<th></th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>As stated in question</td>
<td>$34,570</td>
<td>$55,800</td>
</tr>
<tr>
<td>Inventory adjustment</td>
<td>4,200</td>
<td>(4,200)</td>
</tr>
<tr>
<td><strong>Cost of goods sold</strong></td>
<td><strong>38,770</strong></td>
<td><strong>51,600</strong></td>
</tr>
</tbody>
</table>

2. **Income tax**

<table>
<thead>
<tr>
<th></th>
<th>20X6</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>As stated in question</td>
<td>$3,880</td>
<td>$3,400</td>
</tr>
<tr>
<td>Inventory adjustment (4,200 × 30%)</td>
<td>(1,260)</td>
<td>1,260</td>
</tr>
<tr>
<td><strong>Income tax</strong></td>
<td><strong>2,620</strong></td>
<td><strong>4,660</strong></td>
</tr>
</tbody>
</table>
Chapter 3
The financial statements

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement of profit or loss and other comprehensive income</strong></td>
<td>LO2</td>
</tr>
<tr>
<td>Explain and apply the provisions of IAS 1 <em>Presentation of Financial Statements</em> for the determination of profit (loss) of an entity</td>
<td>LO2.1</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit or loss and other comprehensive income; statement of changes in equity; and statement of financial position</td>
<td>LO2.2</td>
</tr>
<tr>
<td><strong>Statement of financial position</strong></td>
<td>LO3</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit or loss and other comprehensive income; statement of changes in equity; statement of financial position</td>
<td>LO3.1</td>
</tr>
</tbody>
</table>

**Topic list**

1. IAS 1 (revised) *Presentation of financial statements*
2. Statement of financial position
3. Statement of profit or loss and other comprehensive income
4. Statement of changes in equity
5. Notes to the financial statements
6. Revenue recognition
The bulk of this Study Manual looks at the accounts of limited liability companies, either single companies or groups of companies.

We begin in this chapter by looking at the overall content and format of company financial statements. These are governed by IAS 1 (revised) Presentation of financial statements.

This chapter also covers IAS 18 Revenue, which provides guidance on the recognition and measurement of income within profit or loss in the statement of profit or loss and other comprehensive income.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What items does IAS 1 require in a full set of financial statements? (Section 1)
2. When should an asset be classified as a current asset according to IAS 1? (Section 2.3.1)
3. When should a liability be classified as a current liability according to IAS 1? (Section 2.3.2)
4. What is total comprehensive income? (Section 3)
5. What is other comprehensive income? (Section 3)
6. IAS 1 allows the presentation of total comprehensive income either ................................................................. or ................................................................. (Section 3.1)
7. Which items must be reported in the profit or loss section of the statement of profit or loss and other comprehensive income as a minimum according to IAS 1? (Section 3.2.2)
8. What is the purpose of a statement of changes in equity? (Section 4.1)
9. Which accounting standard governs revenue recognition? (Section 6)
10. At what value is revenue measured? (Section 6.5)
11. When should revenue in respect of the sale of goods be recognised? (Section 6.7)
12. When should revenue in respect of the provision of services be recognised? (Section 6.11)
IAS 1 (revised) Presentation of financial statements

Section overview
- IAS 1 covers the form and content of financial statements. The main components are:
  - Statement of financial position
  - Statement of profit or loss and other comprehensive income
  - Statement of changes in equity
  - Statement of cash flows
  - Notes to the financial statements.

IAS 1 Presentation of financial statements gives substantial guidance on the form and content of published financial statements. The Standard looks at the statement of financial position and statement of profit or loss and other comprehensive income (the statement of cash flows is covered by IAS 7). First of all, some general points are made about financial statements.

1.1 Profit or loss for the period
LO 2.1
The statement of profit or loss and other comprehensive income is the most significant indicator of a company’s financial performance. So it is important to ensure that it is not misleading.

IAS 1 stipulates that all items of income and expense recognised in a period should be included in profit or loss unless a Standard or an Interpretation requires otherwise.

Circumstances where items may be excluded from profit or loss for the current year include the correction of errors and the effect of changes in accounting policies. These are covered in IAS 8.

1.2 How items are disclosed

IAS 1 specifies disclosures of certain items in certain ways.

- Some items must appear in the statement of financial position or statement of profit or loss and other comprehensive income.
- Other items can appear in a note to the financial statements instead.
- Recommended formats are given which entities may or may not follow, depending on their circumstances.

Obviously, disclosures specified by other Standards must also be made, and we will mention the necessary disclosures when we cover each statement in turn. Disclosures required by IAS 1 and other Standards must be made either in the statement or in the notes unless otherwise stated, i.e. disclosures cannot be made in an accompanying commentary or report.

1.3 Identification of financial statements

As a result of the above point, it is most important that entities distinguish the financial statements very clearly from any other information published with them. This is because all IASs/IFRSs apply only to the financial statements (i.e. the main statements and related notes), so readers of the annual report must be able to differentiate between the parts of the report which are prepared under IFRSs, and other parts which are not.

The entity should identify each financial statement and the notes very clearly. IAS 1 also requires disclosure of the following information in a prominent position. If necessary, it should be repeated wherever it is felt to be of use to the reader in his understanding of the information presented.

- **Name** of the reporting entity (or other means of identification).
- Whether the accounts cover the **single entity** only or a group of entities.
- The **date of the end of the reporting period** or the period covered by the financial statements (as appropriate).
- The **presentation currency**.
- The **level of rounding** used in presenting amounts in the financial statements.
Judgment must be used to determine the best method of presenting this information. In particular, the Standard suggests that the approach to this will be very different when the financial statements are communicated electronically.

The level of rounding is important, as presenting figures in thousands or millions of units makes the figures more understandable. The level of rounding must be disclosed, however, and it should not obscure necessary details or make the information less relevant.

1.4 Reporting period

It is normal for entities to present financial statements annually and IAS 1 states that they should be prepared at least as often as this. If (unusually) the end of an entity’s reporting period is changed, for whatever reason, the period for which the statements are presented will be less or more than one year. In such cases the entity should also disclose:

(a) the reason(s) why a period other than one year is used; and
(b) the fact that amounts presented in the financial statements are not entirely comparable.

For practical purposes, some entities prefer to use a period which approximates to a year, e.g. 52 weeks, and IAS 1 allows this approach as it will produce statements not materially different from those produced on an annual basis.

IAS 1 looks at the statement of financial position and statement of profit or loss and other comprehensive income. We will not give all the detailed disclosures as some are outside the scope of your syllabus. Instead we will look at a 'proforma' set of accounts based on the Standard.

2 Statement of financial position

Section overview

- IAS 1 specifies the line items to be presented in the statement of financial position.

2.1 Statement of financial position example

The example given by IAS 1 revised is as follows.

XYZ GROUP – STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td>$’000</td>
<td>$’000</td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>350 700</td>
<td>360 020</td>
</tr>
<tr>
<td>Goodwill</td>
<td>80 800</td>
<td>91 200</td>
</tr>
<tr>
<td>Other intangible assets</td>
<td>227 470</td>
<td>227 470</td>
</tr>
<tr>
<td>Investments in associates</td>
<td>100 150</td>
<td>110 770</td>
</tr>
<tr>
<td>Available-for-sale financial assets</td>
<td>142 500</td>
<td>156 000</td>
</tr>
<tr>
<td></td>
<td>901 620</td>
<td>945 460</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>135 230</td>
<td>132 500</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>91 600</td>
<td>110 800</td>
</tr>
<tr>
<td>Other current assets</td>
<td>25 650</td>
<td>12 540</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>312 400</td>
<td>322 900</td>
</tr>
<tr>
<td></td>
<td>564 880</td>
<td>578 740</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>1 466 500</td>
<td>1 524 200</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity attributable to owners of the parent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>650 000</td>
<td>600 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>243 500</td>
<td>161 700</td>
</tr>
<tr>
<td>Other components of equity</td>
<td>10 200</td>
<td>21 200</td>
</tr>
<tr>
<td></td>
<td>903 700</td>
<td>782 900</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td>70,050</td>
<td>48,600</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>Total equity</strong></td>
<td>973,750</td>
<td>831,500</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term borrowings</td>
<td>120,000</td>
<td>160,000</td>
</tr>
<tr>
<td>Deferred tax</td>
<td>28,800</td>
<td>26,040</td>
</tr>
<tr>
<td>Long-term provisions</td>
<td>28,850</td>
<td>52,240</td>
</tr>
<tr>
<td><strong>Total non-current liabilities</strong></td>
<td>177,650</td>
<td>238,280</td>
</tr>
<tr>
<td>Current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade and other payables</td>
<td>115,100</td>
<td>187,620</td>
</tr>
<tr>
<td>Short-term borrowings</td>
<td>150,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Current portion of long-term borrowings</td>
<td>10,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Current tax payable</td>
<td>35,000</td>
<td>42,000</td>
</tr>
<tr>
<td>Short-term provisions</td>
<td>5,000</td>
<td>4,800</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>315,100</td>
<td>454,420</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>492,750</td>
<td>692,700</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>1,466,500</td>
<td>1,524,200</td>
</tr>
</tbody>
</table>

IAS 1 (revised) specifies various items which must appear **in the statement of financial position** as a minimum disclosure.

(a) Property, plant and equipment (Chapter 5)
(b) Investment property (outside the scope of the syllabus)
(c) Intangible assets (Chapter 6)
(d) Financial assets (excluding amounts shown under (e), (h) and (i)) (outside the scope of the syllabus)
(e) Investments accounted for using the equity method (Chapter 13)
(f) Biological assets (outside the scope of the syllabus)
(g) Inventories (Chapter 5)
(h) Trade and other receivables (assumed knowledge)
(i) Cash and cash equivalents (Chapter 4)
(j) Assets classified as held for sale under IFRS 5 (outside the scope of the syllabus)
(k) Trade and other payables (assumed knowledge)
(l) Provisions (outside the scope of the syllabus)
(m) Financial liabilities (other than (j) and (k)) (outside the scope of the syllabus)
(n) Current tax liabilities and assets as in IAS 12 (Chapter 8)
(o) Deferred tax liabilities and assets (Chapter 8)
(p) Liabilities included in disposal groups under IFRS 5 (outside the scope of the syllabus)
(q) Non-controlling interests (Chapter 11)
(r) Issued capital and reserves (assumed knowledge)

We will look at these items in the chapters indicated above.

Any **other line items**, headings or sub-totals should be shown in the statement of financial position when it is necessary for an understanding of the entity’s financial position.

The example shown above is for illustration only (although we will follow the format in this Study Manual). The IAS, however, does not prescribe the order or format in which the items listed should be presented. It simply states that they **must be presented separately** because they are so different in nature or function from each other.

### 2.2 Information presented either in the statement of financial position or by note

Further **sub-classification** of the line items listed above should be disclosed either in the statement of financial position or in the notes. The classification will depend upon the nature of the entity’s operations. As well as each item being sub-classified by its nature, any amounts payable to or receivable from any **group company** should also be disclosed separately.

The sub-classification details will in part depend on the requirements of IFRSs. The size, nature and function of the amounts involved will also be important and the factors listed above should be considered. **Disclosures** will vary from item to item and IAS 1 gives the following examples.
(a) **Property, plant and equipment** are classified by class as described in IAS 16, *Property, plant and equipment*.

(b) **Receivables** are analysed between amounts receivable from trade customers, other members of the group, receivables from related parties, prepayments and other amounts.

(c) **Inventories** are sub-classified, in accordance with IAS 2 *Inventories*, into classifications such as merchandise, production supplies, materials, work in progress and finished goods.

(d) **Provisions** are analysed showing separately provisions for employee benefit costs and any other items classified in a manner appropriate to the entity’s operations.

(e) **Equity capital and reserves** are analysed showing separately the various classes of paid in capital, and reserves.

The Standard then lists some **specific disclosures** which must be made, either in the statement of financial position or in the related notes.

(a) **Share capital disclosures** (for each class of share capital)
   (i) Number of shares authorised
   (ii) Number of shares issued and fully paid, and issued but not fully paid
   (iii) Par value per share, or that the shares have no par value
   (iv) Reconciliation of the number of shares outstanding at the beginning and at the end of the year
   (v) Rights, preferences and restrictions attaching to that class including restrictions on the distribution of dividends and the repayment of capital
   (vi) Shares in the entity held by the entity itself or by related group companies
   (vii) Shares reserved for issuance under options and sales contracts, including the terms and amounts

(b) **Description of the nature and purpose of each reserve** within owners’ equity.

Some types of entity have no share capital, e.g. partnerships. Such entities should disclose information which is **equivalent** to that listed above. This means disclosing the movement during the period in each category of equity interest and any rights, preferences or restrictions attached to each category of equity interest.

### 2.3 The current/non-current distinction

An entity must normally present **current** and **non-current** assets as separate classifications in the statement of financial position. A presentation based on liquidity should only be used where it provides more relevant and reliable information, in which case all assets and liabilities must be presented broadly in **order of liquidity**.

In either case, the entity should disclose any portion of an asset or liability which is expected to be recovered or settled **after more than 12 months**. For example, for an amount receivable which is due in instalments over 18 months, the portion due after more than 12 months must be disclosed.

#### 2.3.1 Current assets

**Definition**

An asset should be classified as a **current asset** when it:

- is expected to be realised in, or is held for sale or consumption in, the normal course of the entity’s operating cycle; or
- is held primarily for trading purposes or for the short-term and expected to be realised within 12 months of the end of the reporting period; or
- is cash or a cash equivalent asset which is not restricted in its use.

All other assets should be classified as non-current assets. *(IAS 1)*
Non-current assets include tangible, intangible, operating and financial assets of a long-term nature. Other terms with the same meaning can be used (e.g. 'fixed', 'long-term').

The term 'operating cycle' has been used several times above and the Standard defines it as follows.

**Definition**

The operating cycle of an entity is the time between the acquisition of assets for processing and their realisation in cash or cash equivalents. 

Current assets therefore include inventories and trade receivables that are sold, consumed and realised as part of the normal operating cycle. This is the case even where they are not expected to be realised within 12 months.

Current assets will also include marketable securities if they are expected to be realised within 12 months after the reporting period or in the course of the entity's normal operating cycle, or are held for trading purposes. Otherwise, they should be included in non-current assets.

### 2.3.2 Current liabilities

**Definition**

A liability should be classified as a current liability when it:

- is expected to be settled in the normal course of the entity’s operating cycle; or
- is held primarily for the purpose of trading; or
- is due to be settled within 12 months after the reporting period; or
- the entity does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

All other liabilities should be classified as non-current liabilities.

The categorisation of current liabilities is very similar to that of current assets. Therefore, some current liabilities are part of the working capital used in the normal operating cycle of the business (i.e. trade payables and accruals for employee and other operating costs). Such items will be classified as current liabilities even where they are due to be settled more than 12 months after the end of the reporting period.

There are also current liabilities which are not settled as part of the normal operating cycle, but which are due to be settled within 12 months of the end of the reporting period. These include bank overdrafts, income taxes, other non-trade payables and the current portion of interest-bearing liabilities. Any interest-bearing liabilities that are used to finance working capital on a long-term basis, and that are not due for settlement within 12 months, should be classified as non-current liabilities.

### 3 Statement of profit or loss and other comprehensive income

**Section overview**

- IAS 1 requires all items of income and expense in a period to be shown in a statement of profit or loss and other comprehensive income.

The statement of profit or loss and other comprehensive income shows the entity's total comprehensive income.
'Profit or loss' is the total of income less expenses shown in the top half of the statement of profit or loss and other comprehensive income. This is sometimes called the statement of profit or loss or the income statement.

'Other comprehensive income' comprises items of income and expense which other Standards do not allow or permit to be recognised in profit or loss.

IAS 1 provides a list of five items which are classified as other comprehensive income. The following two are within the Financial Accounting and Reporting syllabus, and will be covered later in this Study Manual:

- Revaluations of non-current assets (Chapter 5)
- Foreign exchange differences (Chapter 9)

Other comprehensive income is grouped into items that will not be reclassified to profit or loss in the future and items that may be reclassified to profit or loss when specific conditions are met. Although the reclassification of other comprehensive income is not within your syllabus and should not concern you, you should be aware of the related presentation requirements of IAS 1.

3.1 Statement of profit or loss and other comprehensive income – format

IAS 1 (revised) allows total comprehensive income to be presented either:

(a) in a single statement of profit or loss and other comprehensive income; or
(b) in two statements: a separate statement of profit or loss and a statement of comprehensive income.

The format for a single statement of profit or loss and other comprehensive income provided in the Standards is shown below. The section down to 'profit for the year' can be shown as a separate 'statement of profit or loss' with an additional 'statement of comprehensive income'. Note that for completeness, this illustration includes some items that are not covered in this syllabus.
XYZ GROUP – STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 20X7

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Revenue</td>
<td>390 000</td>
<td>355 000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>(245 000)</td>
<td>(230 000)</td>
</tr>
<tr>
<td>Gross profit</td>
<td>145 000</td>
<td>125 000</td>
</tr>
<tr>
<td>Other income</td>
<td>20 667</td>
<td>11 300</td>
</tr>
<tr>
<td>Distribution costs</td>
<td>(9 000)</td>
<td>(8 700)</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>(20 000)</td>
<td>(21 000)</td>
</tr>
<tr>
<td>Other expenses</td>
<td>(2 100)</td>
<td>(1 200)</td>
</tr>
<tr>
<td>Finance costs</td>
<td>(8 000)</td>
<td>(7 500)</td>
</tr>
<tr>
<td>Share of profit of associates</td>
<td>35 100</td>
<td>30 100</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>161 667</td>
<td>128 000</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(40 417)</td>
<td>(32 000)</td>
</tr>
<tr>
<td>Profit for the year from continuing operations</td>
<td>121 250</td>
<td>96 000</td>
</tr>
<tr>
<td>* Loss for the year from discontinued operations</td>
<td>-</td>
<td>(30 500)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>121 250</td>
<td>65 500</td>
</tr>
</tbody>
</table>

Other comprehensive income:

### Items that will not be reclassified to profit or loss
- Gains on property revaluation: 933, 3 367
- Remeasurements of defined benefit pension plans: (667), 1 333
- Share of gain (loss) on property revaluation of associates: 400, (700)
- Income tax relating to items that will not be reclassified: (166), (1 000)
- Total: 500, 3 000

### Items that may be reclassified to profit or loss
- Exchange differences on translating foreign operations: 5 334, 10 667
- Available-for-sale financial assets: (24 000), 26 667
- Cash flow hedges: (667), (4 000)
- Income tax relating to items that may be reclassified: 4 833, (8 334)
- Total: (14 500), 25 000

Other comprehensive income for the year, net of tax:

| Total comprehensive income for the year | 107 250 | 93 500 |

Profit attributable to:
- Owners of the parent: 97 000, 52 400
- Non-controlling interest: 24 250, 13 100
- Total: 121 250, 65 500

Total comprehensive income attributable to:
- Owners of the parent: 85 800, 74 800
- Non-controlling interest: 21 450, 18 700
- Total: 107 250, 93 500

Earnings per share (in currency units): 0.46, 0.30

*Not in the Financial Accounting and Reporting syllabus
Companies are given the option of presenting this information in two statements as follows:

**XYZ GROUP – STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 20X7**

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>$390 000</td>
<td>$355 000</td>
</tr>
<tr>
<td><strong>Cost of sales</strong></td>
<td>$(245 000)</td>
<td>$(230 000)</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>$145 000</td>
<td>$125 000</td>
</tr>
<tr>
<td><strong>Other income</strong></td>
<td>$20 667</td>
<td>$11 300</td>
</tr>
<tr>
<td><strong>Distribution costs</strong></td>
<td>$(9 000)</td>
<td>$(8 700)</td>
</tr>
<tr>
<td><strong>Administrative expenses</strong></td>
<td>$(20 000)</td>
<td>$(21 000)</td>
</tr>
<tr>
<td><strong>Other expenses</strong></td>
<td>$(2 100)</td>
<td>$(1 200)</td>
</tr>
<tr>
<td><strong>Finance costs</strong></td>
<td>$(8 000)</td>
<td>$(7 500)</td>
</tr>
<tr>
<td><strong>Share of profit of associates</strong></td>
<td>$35 100</td>
<td>$30 100</td>
</tr>
<tr>
<td><strong>Profit before tax</strong></td>
<td>$161 667</td>
<td>$128 000</td>
</tr>
<tr>
<td><strong>Income tax expense</strong></td>
<td>$(40 417)</td>
<td>$(32 000)</td>
</tr>
<tr>
<td><strong>Profit for the year from continuing operations</strong></td>
<td>$121 250</td>
<td>$96 000</td>
</tr>
<tr>
<td><strong>Loss for the year from discontinued operations</strong></td>
<td>$(30 500)</td>
<td>$(30 500)</td>
</tr>
<tr>
<td><strong>Profit for the year</strong></td>
<td>$121 250</td>
<td>$65 500</td>
</tr>
<tr>
<td><strong>Profit attributable to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of the parent</td>
<td>$97 000</td>
<td>$52 400</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td>$24 250</td>
<td>$13 100</td>
</tr>
<tr>
<td><strong>Profit for the year</strong></td>
<td>$121 250</td>
<td>$65 500</td>
</tr>
</tbody>
</table>

**XYZ GROUP STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 20X7**

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profit for the year</strong></td>
<td>$121 250</td>
<td>$65 500</td>
</tr>
<tr>
<td><strong>Other comprehensive income:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Items that will not be reclassified to profit or loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains on property revaluation</td>
<td>$933</td>
<td>$3 367</td>
</tr>
<tr>
<td>*Remeasurements of defined benefit pension plans</td>
<td>$(667)</td>
<td>$1 333</td>
</tr>
<tr>
<td>Share of gain on property revaluation of associates</td>
<td>$400</td>
<td>$(700)</td>
</tr>
<tr>
<td>Income tax relating to items that will not be reclassified</td>
<td>$(166)</td>
<td>$(1 000)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$(500)</td>
<td>$3 000</td>
</tr>
<tr>
<td>Items that may be reclassified to profit or loss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exchange differences on translating foreign operations</td>
<td>$5 334</td>
<td>$10 667</td>
</tr>
<tr>
<td>*Available-for-sale financial assets</td>
<td>$(24 000)</td>
<td>$26 667</td>
</tr>
<tr>
<td>*Cash flow hedges</td>
<td>$(667)</td>
<td>$(4 000)</td>
</tr>
<tr>
<td>Income tax relating to items that may be reclassified</td>
<td>$4 833</td>
<td>$(8 334)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$(14 500)</td>
<td>$25 000</td>
</tr>
<tr>
<td><strong>Other comprehensive income for the year, net of tax</strong></td>
<td>$(14 000)</td>
<td>$28 000</td>
</tr>
<tr>
<td><strong>Total comprehensive income for the year</strong></td>
<td>$107 250</td>
<td>$93 500</td>
</tr>
<tr>
<td><strong>Total comprehensive income attributable to:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owners of the parent</td>
<td>$85 800</td>
<td>$74 800</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td>$21 450</td>
<td>$18 700</td>
</tr>
<tr>
<td><strong>Total comprehensive income attributable to</strong></td>
<td>$107 250</td>
<td>$93 500</td>
</tr>
</tbody>
</table>

*Not in the Financial Accounting and Reporting syllabus*
### Section overview

- IAS 1 offers two possible formats for the statement of profit or loss section or separate statement of profit or loss – by function or by nature. Classification by function is more common.

### 3.2.1 Examples of separate statements of profit or loss

**XYZ GROUP**

**STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 20X8**

**Illustrating the classification of expenses by function:**

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of sales</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Gross profit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution costs</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Other expenses</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Finance costs</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Share of profit of associates</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Profit before tax</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td><strong>Profit for the year</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attributable to:

- Owners of the parent: X X
- Non-controlling interest: X X

**Illustrating the classification of expenses by nature:**

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in inventories of finished goods and work in progress</td>
<td>(X)</td>
<td>X</td>
</tr>
<tr>
<td>Work performed by the entity and capitalised</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Raw material and consumables used</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Employee benefits expense</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Depreciation and amortisation expense</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Impairment of property, plant and equipment</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Other expenses</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Finance costs</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Share of profit of associates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit before tax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(X)</td>
<td>(X)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attributable to:

- Owners of the parent: X X
- Non-controlling interest: X X

Note: The usual method of presentation is expenses by function.
3.2.2 Information presented in the statement of profit or loss

In addition to items required by other IFRSs, IAS 1 requires that the statement of profit or loss includes the following line items:

(a) Revenue
(b) Finance costs
(c) Share of profits and losses of associates and joint ventures accounted for using the equity method
(d) A single amount for the total of discontinued operations
(e) Tax expense

The following items must be disclosed as allocations of profit or loss for the period:

(a) Profit or loss attributable to non-controlling interest
(b) Non-controlling interest

The allocated amounts must not be presented as items of income or expense. These relate to group accounts, covered later in this Study Manual.

Income and expense items can be offset when, and only when:

(a) It is permitted or required by an IFRS, or
(b) Gains, losses and related expenses arising from the same or similar transactions and events are immaterial, in which case they can be aggregated.

3.2.3 Exceptional items

IAS 1 requires that additional line items are disclosed in the statement of profit or loss and other comprehensive income where they are relevant to an understanding of an entity’s financial performance.

IAS 1 does not allow the presentation of any items as extraordinary.

3.2.4 Information presented either in the statement or in the notes

An analysis of expenses must be shown either in the statement of profit or loss (as above, which is encouraged by the Standard) or by note, using a classification based on either the nature of the expenses or their function. This sub-classification of expenses indicates a range of components of financial performance; these may differ in terms of stability, potential for gain or loss and predictability.

Nature of expense method

Expenses are not reallocated amongst various functions within the entity, but are aggregated in the statement of profit or loss according to their nature (e.g. purchase of materials, depreciation, wages and salaries, transport costs). This is by far the easiest method, especially for smaller entities.

Function of expense/cost of sales method

You are likely to be more familiar with this method. Expenses are classified according to their function as part of cost of sales, distribution or administrative activities. This method often gives more relevant information for users, but the allocation of expenses by function requires the use of judgment and can be arbitrary. Consequently, perhaps, when this method is used, entities should disclose additional information on the nature of expenses, including staff costs, and depreciation and amortisation expense. This is the method you should expect to see in your exam.

Which of the above methods is chosen by an entity will depend on historical and industry factors, and also the nature of the organisation. Under each method, there should be given an indication of costs which are likely to vary (directly or indirectly) with the level of sales or production. The choice of method should fairly reflect the main elements of the entity’s performance.

3.3 Other comprehensive income

Items of other comprehensive income may be presented either:

- net of related tax effects, or
- before related tax effects with an aggregate amount of tax disclosed separately for items which will not be reclassified to profit or loss and items which may be reclassified to profit or loss.
IAS 1 requires that the section of the statement of profit or loss and other comprehensive income which shows other comprehensive income includes line items for:

- profit or loss;
- total other comprehensive income, and
- comprehensive income for the period being the total of profit or loss and other comprehensive income.

It should also show the comprehensive income for the period attributable to:

(i) non-controlling interests, and
(ii) owners of the parent.

4 Statement of changes in equity

Section overview

- IAS 1 requires a statement of changes in equity. This shows the movement in the equity section of the statement of financial position. A full set of financial statements includes a statement of changes in equity.

4.1 Format

This is the format of the statement of changes in equity as per IAS 1. In this example, total comprehensive income is reported in aggregate, and profit or loss and the individual elements of other comprehensive income are not identified. This reflects the aim of the statement to provide information about transactions between a company and its shareholders in their capacity as shareholders e.g. dividends and share issues. IAS 1 requires an analysis of other comprehensive income by item to be shown either in the statement of changes in equity or in the notes to the accounts.

**XYZ GROUP – STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 31 DECEMBER 20X7**

<table>
<thead>
<tr>
<th>Available</th>
<th>Share capital</th>
<th>Retained earnings</th>
<th>for-sale financial assets</th>
<th>Revaluation surplus</th>
<th>Total</th>
<th>Non-controlling interest</th>
<th>Total equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Balance at 1 Jan 20X6</td>
<td>600 000</td>
<td>118 100</td>
<td>1 600</td>
<td>–</td>
<td>719 700</td>
<td>29 800</td>
<td>749 500</td>
</tr>
<tr>
<td>Changes in accounting policy</td>
<td>–</td>
<td>400</td>
<td>–</td>
<td>–</td>
<td>400</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>Restated balance</td>
<td>600 000</td>
<td>118 500</td>
<td>1 600</td>
<td>–</td>
<td>720 100</td>
<td>29 900</td>
<td>750 000</td>
</tr>
</tbody>
</table>

Changes in equity

- Dividends: – (10 000) – – – (10 000) – (10 000)
- Total comprehensive income for the year: – 53 200 16 000 1 600 70 800 18 700 89 500

Balance at 31 Dec 20X6

<table>
<thead>
<tr>
<th>Changes in equity for 20X7</th>
<th>Issue of share capital</th>
<th>–</th>
<th>50 000</th>
<th>–</th>
<th>–</th>
<th>50 000</th>
<th>–</th>
<th>50 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividends</td>
<td>–</td>
<td>(15 000)</td>
<td>–</td>
<td>–</td>
<td>(15 000)</td>
<td>–</td>
<td>(15 000)</td>
<td></td>
</tr>
<tr>
<td>Total comprehensive income for the year</td>
<td>–</td>
<td>96 600</td>
<td>(14 400)</td>
<td>800</td>
<td>83 000</td>
<td>21 450</td>
<td>104 450</td>
<td></td>
</tr>
<tr>
<td>Transfer to retained earnings</td>
<td>–</td>
<td>200</td>
<td>–</td>
<td>(200)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Balance at 31 Dec 20X7</td>
<td>650 000</td>
<td>243 500</td>
<td>3 200</td>
<td>2 200</td>
<td>898 900</td>
<td>70 050</td>
<td>968 950</td>
<td></td>
</tr>
</tbody>
</table>
Note that where there has been a change of accounting policy necessitating a retrospective restatement, the adjustment is disclosed for each period. So, rather than just showing an adjustment to the balance brought forward on 1.1.X7, the balances for 20X6 are restated.

5 Notes to the financial statements

Section overview
- Some items need to be disclosed by way of note.

5.1 Contents of notes

The notes to the financial statements will amplify the information given in the statement of financial position, statement of profit or loss and other comprehensive income and statement of changes in equity. We have already noted above the information which the IAS allows to be shown by note rather than in the statements. To some extent, then, the contents of the notes will be determined by the level of detail shown in the statements.

5.2 Structure

The notes to the financial statements should perform the following functions:

(a) Provide information about the basis on which the financial statements were prepared and which specific accounting policies were chosen and applied to significant transactions/events.
(b) Disclose any information, not shown elsewhere in the financial statements, which is required by IFRSs.
(c) Show any additional information that is relevant to understanding which is not shown elsewhere in the financial statements.

The way the notes are presented is important. They should be given in a systematic manner and cross referenced back to the related figure(s) in the statement of financial position, statement of profit or loss and other comprehensive income or statement of cash flows.

Notes to the financial statements will amplify the information shown therein by giving the following:

(a) More detailed analysis or breakdowns of figures in the statements
(b) Narrative information explaining figures in the statements
(c) Additional information, e.g. contingent liabilities and commitments.

IAS 1 suggests a certain order for notes to the financial statements. This will assist users when comparing the statements of different entities:

(a) Statement of compliance with IFRSs
(b) Statement of the measurement bases and other accounting policies applied
(c) Supporting information for items presented in each financial statement in the same order as each line item and each financial statement is presented
(d) Other disclosures, for example:
   (i) Contingent liabilities, commitments and other financial disclosures
   (ii) Non-financial disclosures

The order of specific items may have to be varied occasionally, but a systematic structure is still required.

5.3 Disclosure of accounting policies

The accounting policies section should describe the following:

(a) The measurement basis (or bases) used in preparing the financial statements.
(b) The other accounting policies used, as required for a proper understanding of the financial statements.
This information may be shown in the notes or sometimes as a separate component of the financial statements.

The information on measurement bases used is clearly fundamental to an understanding of the financial statements. Where more than one basis is used, it should be stated to which assets or liabilities each basis has been applied.

Note: Accounting policies were covered in Chapter 2.

5.4 Other disclosures

An entity must disclose in the notes:

(a) The amount of dividends proposed or declared before the financial statements were authorised for issue but not recognised as a distribution to owners during the period, and the amount per share.

(b) The amount of any cumulative preference dividends not recognised.

IAS 1 ends by listing some specific disclosures which will always be required if they are not shown elsewhere in the financial statements:

(a) The domicile and legal form of the entity, its country of incorporation and the address of the registered office (or, if different, principal place of business).

(b) A description of the nature of the entity’s operations and its principal activities.

(c) The name of the parent entity and the ultimate parent entity of the group.

6 Revenue recognition

Section overview

• Revenue recognition is straightforward in most business transactions, but some situations are more complicated and some give opportunities for manipulation.

6.1 Introduction

Perhaps the largest single number in the statement of profit or loss and other comprehensive income is that of revenue. Of particular concern is when revenue should be recorded. Accruals accounting is based on the matching of costs with the revenue they generate. It is therefore crucially important under this convention that we can establish the point at which revenue may be recognised so that the correct treatment can be applied to the related costs. For example, the costs of producing an item of finished goods should be carried as an asset in the statement of financial position until such time as it is sold; they should then be written off as a charge to profit or loss. Which of these two treatments should be applied cannot be decided until it is clear at what moment the sale of the item takes place.

6.2 IAS 18 Revenue

IAS 18 governs the recognition of revenue in specific (common) types of transaction. Generally, recognition should be when it is probable that future economic benefits will flow to the entity and when these benefits can be measured reliably.

Income, as defined by the IASB’s Conceptual Framework document (see Chapter 2), includes both revenues and gains. Revenue is income arising in the ordinary course of an entity’s activities and it may be called different names, such as sales, fees, interest, dividends or royalties. Gains represent other items that meet the definition of income and may, or may not, arise in the course of the ordinary activities of an entity.
6.3 Scope
IAS 18 covers the revenue from specific types of transaction or events.
- **Sale of goods** (manufactured products and items purchased for resale)
- **Rendering of services**
- **Use by others of entity assets yielding interest, royalties and dividends**

Interest, royalties and dividends are included as income because they arise from the use of an entity’s assets by other parties. Revenue from certain other sources, such as leases and construction contracts, are covered by other accounting standards.

Definitions
- **Interest** is the charge for the use of cash or cash equivalents or amounts due to the entity.
- **Royalties** are charges for the use of non-current assets of the entity, e.g. patents, computer software and trademarks.
- **Dividends** are distributions of profit to holders of equity investments, in proportion with their holdings, of each relevant class of capital.

The Standard specifically **excludes** various types of revenue arising from leases, insurance contracts, changes in value of financial instruments or other current assets, natural increases in agricultural assets and mineral ore extraction.

6.4 Definitions
The following definitions are given in the Standard.

Definitions
- **Revenue** is the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants.

**Fair value** is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (IAS 18)

Revenue **does not include** sales taxes, value added taxes or goods and service taxes which are only collected for third parties, because these do not represent an economic benefit flowing to the entity. The same is true for revenues collected by an agent on behalf of a principal. Revenue for the agent is only the commission received for acting as agent.

6.5 Measurement of revenue
When a transaction takes place, the amount of revenue is usually decided by the **agreement of the buyer and seller**. The revenue is actually measured, however, as the **fair value of the consideration received**, which will take account of any trade discounts and volume rebates.

6.6 Identification of the transaction
Normally, each transaction can be looked at as a whole. Sometimes, however, transactions are more complicated, and it is necessary to break a transaction down into its **component parts**. For example, a sale may include the transfer of goods and the provision of future servicing, the revenue for which should be deferred over the period the service is performed.
6.7 Sale of goods

Revenue from the sale of goods should only be recognised when all these conditions are satisfied:

(a) The entity has transferred the **significant risks and rewards** of ownership of the goods to the buyer.

(b) The entity has **no continuing managerial involvement** to the degree usually associated with ownership, and no longer has effective control over the goods sold.

(c) The amount of revenue can be **measured reliably**.

(d) It is probable that the **economic benefits** associated with the transaction will flow to the entity.

(e) The **costs incurred** in respect of the transaction can be measured reliably.

The transfer of risks and rewards can only be decided by examining each transaction. Mainly, the transfer occurs at the same time as either the **transfer of legal title**, or the **passing of possession**, to the buyer – this is what happens when you buy something in a shop.

If **significant risks and rewards remain with the seller**, then the transaction is not a sale and revenue cannot be recognised, for example if the receipt of the revenue from a particular sale depends on the buyer receiving revenue from his own sale of the goods.

It is possible for the seller to retain only an **'insignificant' risk of ownership** and for the sale and revenue to be recognised. The main example here is where the seller retains title only to ensure collection of what is owed on the goods. This is a common commercial situation, and when it arises the revenue should be recognised on the date of sale.

The probability of the entity receiving the revenue arising from a transaction must be assessed. It may only become probable that the economic benefits will be received when an uncertainty is removed, for example, government permission for funds to be received from another country. Only when the uncertainty is removed should the revenue be recognised. This is in contrast with the situation where revenue has already been recognised but where the **collectability of the cash** is brought into doubt. Where recovery has ceased to be probable, the amount should be recognised as an expense, **not** an adjustment of the revenue previously recognised. These points also refer to services and interest, royalties and dividends below.

**Matching** should take place, i.e. the revenue and expenses relating to the same transaction should be recognised at the same time. It is usually easy to estimate expenses at the date of sale (e.g. warranty costs, shipment costs, and so on). Where they cannot be estimated reliably, then revenue cannot be recognised; any consideration which has already been received is treated as a liability.

6.8 Example

A washing machine sells for $500 with a one-year warranty. The dealer knows from experience that 15% of these machines develop a fault in the first year and that the average cost of repair is $100. He sells 200 machines. How does he account for this sale?

**Solution**

The dealer will recognise revenue of $100 000 ($500 \times 200), an associated warranty expense of $3 000 and a provision of $3 000 ($100 \times 200 \times 15%).

This is the expense warranty accrual method, the use of which can be contentious. It may be addressed in a revised revenue standard.

6.9 Servicing fees included in the price

The sales price of a product may include an identifiable amount for subsequent servicing. In this case, that amount is deferred and recognised as revenue over the period during which the service is performed. The amount deferred must cover the cost of those services together with a reasonable profit on those services.
6.10 Example

A computerised accountancy package is sold with one year’s after-sales support. The cost of providing support to one customer for one year is calculated to be $50. The company has a mark-up on cost of 15%. The product is sold for $350. How is this sale accounted for?

Solution

$57.50 (50 + (50 \times 15\%)) will be treated as deferred income and recognised over the course of the year.

The remaining $292.50 will be treated as revenue.

6.11 Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, the associated revenue should be recognised by reference to the stage of completion of the transaction at the end of the reporting period. The outcome of a transaction can be estimated reliably when all these conditions are satisfied:

(a) The amount of revenue can be measured reliably.

(b) It is probable that the economic benefits associated with the transaction will flow to the entity.

(c) The stage of completion of the transaction at the end of the reporting period can be measured reliably.

(d) The costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

There are various methods of determining the stage of completion of a transaction, but for practical purposes, when services are performed by an indeterminate number of acts over a period of time, revenue should be recognised on a straight line basis over the period, unless there is evidence for the use of a more appropriate method. If one act is of more significance than the others, then the significant act should be carried out before revenue is recognised.

In uncertain situations, when the outcome of the transaction involving the rendering of services cannot be estimated reliably, the Standard recommends a no loss/no gain approach. Revenue is recognised only to the extent of the expenses recognised that are recoverable.

This is particularly likely during the early stages of a transaction, but it is still probable that the entity will recover the costs incurred. So the revenue recognised in such a period will be equal to the expenses incurred, with no profit.

Obviously, if the costs are not likely to be reimbursed, then they must be recognised as an expense immediately. When the uncertainties cease to exist, revenue should be recognised as laid out in the first paragraph of this section.

6.12 Interest, royalties and dividends

When others use the entity’s assets yielding interest, royalties and dividends, the revenue should be recognised on the bases set out below when:

(a) it is probable that the economic benefits associated with the transaction will flow to the entity; and

(b) the amount of the revenue can be measured reliably.

The revenue is recognised on the following bases:

(a) Interest is recognised on a time proportion basis (according to the time the loan has been outstanding as a proportion of the reporting period).

(b) Royalties are recognised on an accruals basis in accordance with the substance of the relevant agreement.
(c) **Dividends** are recognised when the shareholder’s right to receive payment is established.

Once again, the points made above about **probability and collectability** on sale of goods also apply here.

### 6.13 Disclosure

The following items should be disclosed:

(a) The **accounting policies** adopted for the recognition of revenue, including the methods used to determine the stage of completion of transactions involving the rendering of services.

(b) The amount of each **significant category of revenue** recognised during the period including revenue arising from:

   (i) The sale of goods
   (ii) The rendering of services
   (iii) Interest
   (iv) Royalties
   (v) Dividends

(c) The amount of revenue arising from **exchanges of goods or services** included in each significant category of revenue.

---

**Question 1: Recognition**

Discuss under what circumstances, if any, revenue might be recognised at the following stages of a sale:

(a) Goods are acquired by the business which it confidently expects to resell very quickly.
(b) A customer places a firm order for goods.
(c) Goods are delivered to the customer.
(d) The customer is invoiced for goods.
(e) The customer pays for the goods.
(f) The customer’s cheque in payment for the goods has been cleared by the bank.

(The answer is at the end of the chapter)
Key chapter points

- IAS 1 covers the form and content of financial statements. The main components are
  - Statement of financial position
  - Statement of profit or loss and other comprehensive income
  - Statement of changes in equity
  - Statement of cash flows
  - Notes to the financial statements

- IAS 1 suggests a format for the statement of financial position. Certain items are specified for disclosure in the financial statements and notes to the accounts.

- An asset should be classified as current when it:
  - is expected to be realised in, or is held for sale or consumption in, the normal course of the entity’s operating cycle; or
  - is held primarily for trading purposes or for the short-term and expected to be realised within 12 months of the end of the reporting period; or
  - is cash or a cash equivalent asset which is not restricted in its use.

- A liability should be classified as current when:
  - it is expected to be settled in the normal course of the entity’s operating cycle; or
  - it is held primarily for the purpose of trading; or
  - it is due to be settled within twelve months after the reporting period; or
  - the entity does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

- IAS 1 revised requires total comprehensive income in a period to be shown either in a statement of profit or loss and other comprehensive income or in a separate statement reporting other comprehensive income and total comprehensive income.

- Total comprehensive income is the change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners. It comprises all components of profit or loss and of other comprehensive income.

- Other comprehensive income refers to items which other standards do not allow or permit to be recognised in profit or loss.

- IAS 1 offers two possible formats for the profit or loss section of the statement of profit or loss and other comprehensive income or separate statement of profit or loss – by function or by nature. Classification by function is more common.

- IAS 1 requires a statement of changes in equity. This shows the movement in the equity section of the statement of financial position as a result of transactions with shareholders in their capacity as shareholders. It also shows profit or loss and other comprehensive income.

- Some items need to be disclosed by way of note, for example, accounting policies.

- IAS 18 provides the rules for the recognition of revenue relating to the sale of goods, provision of services and royalties, interest and dividends.
Revenue from the sale of goods should only be recognised when all of the following conditions are satisfied:

(a) The entity has transferred the significant risks and rewards of ownership of the goods to the buyer.
(b) The entity has no continuing managerial involvement to the degree usually associated with ownership, and no longer has effective control over the goods sold.
(c) The amount of revenue can be measured reliably.
(d) It is probable that the economic benefits associated with the transaction will flow to the entity.
(e) The costs incurred in respect of the transaction can be measured reliably.

Revenue relating to the provision of services is recognised by reference to stage of completion when the transaction’s outcome can be estimated reliably. The outcome of a transaction can be estimated reliably when all of the following conditions are satisfied:

(a) The amount of revenue can be measured reliably.
(b) It is probable that the economic benefits associated with the transaction will flow to the entity.
(c) The stage of completion of the transaction at the end of the reporting period can be measured reliably.
(d) The costs incurred for the transaction and the costs to complete the transaction can be measured reliably.
Quick revision questions

1. Which of the following are examples of current assets?
   I. Property, plant and equipment
   II. Prepayments
   III. Cash equivalents
   IV. Manufacturing licences
   V. Income received in advance
   A. II and III only
   B. II, III and IV only
   C. I, II, III, IV and V
   D. V only

2. Which of the following must be disclosed in the statement of profit or loss and other comprehensive income?
   I. Tax expense
   II. Analysis of expenses
   III. Net profit or loss for the period
   A. I and II only
   B. I and III only
   C. II and III only
   D. I, II and III

3. In the current financial year, Natamo has raised a loan for $3 million. The loan is repayable in 10 equal half yearly instalments. The first instalment is due six months after the loan was raised.
   The loan will be reported in Natamo's next financial statements
   A. as a current liability
   B. as a non-current liability
   C. as both a current and a non-current liability
   D. as capital

4. When reporting profit for a period, companies are required to ensure that income and expenses are correctly classified.
   Which one of the following items will not be included in the calculation of profit before tax?
   A. Depreciation expense
   B. Interest payable
   C. Reorganisation costs
   D. Non-controlling interests

5. The draft statement of profit or loss and other comprehensive income of Thermin for the year ended 30 November 20X4 shows a profit before tax of $325 800. This includes:
   1. a restructuring charge of $85 000; and
   2. an adjustment of $42 000 to reduce the value of opening inventory. An error at the previous year end had led to the inventory being over-valued.
   What is the correct profit before tax for the year ended 30 November 20X4?
   A. $283 800
   B. $325 800
   C. $367 800
   D. $452 800
6 In the last financial year Cuchabee issued an invoice for $28,900 for the sale of inventory which had cost $27,600.

What was the effect of this transaction on the company’s assets, liabilities and capital and reserves?

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Capital and reserves</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Increased</td>
<td>Reduced</td>
</tr>
<tr>
<td>B</td>
<td>Increased</td>
<td>Unchanged</td>
</tr>
<tr>
<td>C</td>
<td>Reduced</td>
<td>Unchanged</td>
</tr>
<tr>
<td>D</td>
<td>Unchanged</td>
<td>Reduced</td>
</tr>
</tbody>
</table>

7 Which one of the following is reported as other comprehensive income?

A A dividend  
B A surplus on revaluation of a property  
C The proceeds of a share issue  
D The profit on sale of a property

8 On 31 March 20X7, DT received an order from a new customer, XX, for products with a sales value of $900,000. XX enclosed a deposit with the order of $90,000.

On 31 March 20X7, DT had not completed credit referencing of XX and had not despatched any goods. DT is considering the following possible entries for this transaction in its financial statements for the year ended 31 March 20X7.

I Include $900,000 in revenue for the year  
II Include $90,000 in revenue for the year  
III Do not include anything in revenue for the year  
IV Recognise a trade receivable for $810,000  
V Recognise a liability for $90,000

According to IAS 18 Revenue recognition, how should DT record this transaction in its financial statements for the year ended 31 March 20X7?

A I and IV only  
B II and V only  
C III and IV only  
D III and V only

9 London Co sells air conditioning systems, providing one year’s free servicing with every system sold. How should London Co account for the $4,000 sales price of each system if $500 is the amount charged for providing one year’s free servicing?

A $3,500 should be recognised as revenue on delivery. $500 should be netted off against the costs of servicing and so is not recognised as revenue in the financial statements.  
B $3,500 should be recognised as revenue when each system is delivered to the customer. $500 should recorded as deferred income and recognised as revenue over the first year after sale.  
C $4,000 should be recognised as revenue spread over the first year after sale.  
D $4,000 should be recognised as revenue when each system is delivered to the customer. $500 should be expensed on the accruals basis over the first year after the sale.

10 Which of the following statements regarding revenue recognition is true?

I Revenue is measured at the fair value of the consideration received.  
II Revenue from the sale of goods on a sale or return basis is recognised when the goods are sold to a third party.  
III Tuition fees received by a college are recognised as income on the day the tuition commences.

A I only  
B I and II only  
C II and III only  
D I, II and III
Answers to quick revision questions

1. A  II and III only. I and IV are non-current assets. Income received in advance is termed deferred income and recognised as a current liability.

2. B  I and III only. II may be shown in the notes.

3. C  The amount due within 12 months of the reporting date should be disclosed as a current liability and the remainder as non-current.

4. D  Non-controlling interests are apportioned their share of profits after tax; they do not feature within the calculation of profit.

5. B  Both items have been dealt with correctly. The restructuring charge, although exceptional in nature, should be charged against this year’s profits. Although the adjustment to opening inventory is a prior period adjustment (it corrects an error) it also affects the profit for the current year because it affects cost of sales for both years. Cost of sales for the prior period is increased and profit reduced; cost of sales for the current year is reduced and profit increased.

6. B  Assets will increase as the receivable value is higher than the carrying amount of the inventory. There is no effect on liabilities. Capital and reserves will increase as the inventory was sold for a profit.

7. B  A and C are transactions with shareholders and so reported in the statement of changes in equity; D is realised income and so reported within profit or loss in the statement of profit or loss and other comprehensive income.

8. D  No sale has taken place, so DT must show that it is holding $90,000 which belongs to XX.

9. B  IAS 18 requires that where an ongoing service is provided as part of a product sale transaction, the revenue should be split between the product and the ongoing service. That revenue relating to the service is recognised when the service is provided.

10. B  Tuition fees are revenue from the provision of a service and should be recognised over the period that the tuition is provided.
1 (a) A sale must never be recognised before the goods have even been ordered by a customer. There is no certainty about the value of the sale, nor when it will take place, even if it is virtually certain that goods will be sold.

(b) A sale must never be recognised when the customer places an order. Even though the order will be for a specific quantity of goods at a specific price, it is not yet certain that the sale transaction will go through. The customer may cancel the order, the supplier might be unable to deliver the goods as ordered or it may be decided that the customer is not a good credit risk.

(c) A sale will be recognised when delivery of the goods is made only when:
   (i) the sale is for cash, and so the cash is received at the same time; or
   (ii) the sale is on credit and the customer accepts delivery (e.g. by signing a delivery note).

(d) The critical event for a credit sale is usually the despatch of an invoice to the customer. There is then a legally enforceable debt, payable on specified terms, for a completed sale transaction.

(e) The critical event for a cash sale is when delivery takes place and when cash is received; both take place at the same time.
   
   It would be too cautious to await cash payment for a credit sale transaction before recognising the sale, unless the customer is a high credit risk and there is a serious doubt about their ability or intention to pay.

(f) It would again be over-cautious to wait for clearance of the customer’s cheques before recognising sales revenue. Such a precaution would only be justified in cases where there is a very high risk of the bank refusing to honour the cheque.
Chapter 4

Statement of cash flows

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<tr>
<td>Explain the usefulness of the statement of cash flow</td>
<td>LO4.1</td>
</tr>
<tr>
<td>Explain and apply the definition of cash and cash equivalents</td>
<td>LO4.2</td>
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<td>Describe the differences between operating, investing and financing activities</td>
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Topic list

1. IAS 7 Statement of cash flows
2. Preparing a statement of cash flows
In the long run, a profit will result in an increase in the company’s cash balance but, in the short run, **this will not necessarily be the case**. The observation leads us to two questions. The first relates to the importance of the distinction between cash and profit. The second is concerned with the usefulness of the information provided by the statement of financial position and statement of profit or loss and other comprehensive income in the problem of deciding whether the company has, or will be able to generate, sufficient cash to finance its operations. The importance of the **distinction between cash and profit** and the scant attention paid to this by the statement of profit or loss and other comprehensive income has resulted in the development of statements of cash flows.

This chapter adopts a systematic approach to the preparation of all the components of statements of cash flows in examinations; you should learn this method and you will then be equipped for any problems in the exam itself.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. Why is a statement of cash flows important? (Section 1)
2. What are cash equivalents? (Section 1.4)
3. What three classifications of cash flows are required by IAS 7? (Section 1.6)
4. How is cash generated by operations calculated using the direct method? (Section 1.7.1)
5. How is cash generated by operations calculated using the indirect method? (Section 1.7.3)
6. What are the advantages of a statement of cash flows? (Section 2.4)
1 IAS 7 Statement of cash flows

Section overview

- **Statements of cash flows** are a useful addition to the financial statements of a company because accounting profit is not the only indicator of performance. Statements of cash flows concentrate on the sources and uses of cash and are a useful indicator of a company's liquidity and solvency.

It has been argued that 'profit' does not always give a useful or meaningful picture of a company's operations. Readers of a company's financial statements might even be misled by a reported profit figure, as shown below:

(a) Shareholders might believe that if a company makes a profit after tax, of say, $100 000 then this is the amount that it could afford to pay as a dividend. Unless the company has sufficient cash available to both stay in business and pay a dividend, the shareholders' expectations would be wrong.

(b) Employees might believe that if a company makes profits, it can afford to pay higher wages in the following year. This opinion may not be correct: the ability to pay wages depends on the availability of cash.

(c) Survival of a business entity depends not so much on profits as on its ability to pay its debts when they fall due. Such payments might include 'profit and loss' items such as material purchases, wages, interest and taxation, but also capital payments for new non-current assets and the repayment of loan capital when this falls due (for example, on the redemption of loan capital).

From these examples, it may be apparent that a company's performance and prospects depend not so much on the 'profits' earned in a period, but more realistically on liquidity or cash flows.

It is therefore very important that the management of a company understand the need to control cash flows and actively monitor the company's cash position.

1.1 Objective of IAS 7

The aim of IAS 7 is to provide information to users of financial statements about an entity's ability to generate cash and cash equivalents, as well as indicating the cash needs of the entity. The statement of cash flows provides historical information about cash and cash equivalents, classifying cash flows between operating, investing and financing activities.

1.2 Scope

A statement of cash flows should be presented as an integral part of an entity's financial statements. All types of entity can provide useful information about cash flows as the need for cash is universal, whatever the nature of their revenue-producing activities. Therefore, **all entities are required by the Standard to produce a statement of cash flows.**

1.3 Benefits of cash flow information

Statements of cash flows should be used in conjunction with the rest of the financial statements. Users can gain further appreciation of the change in net assets, of the entity's financial position (liquidity and solvency) and the entity's ability to adapt to changing circumstances by adjusting the amount and timing of cash flows. Statements of cash flows enhance comparability as they are not affected by differing accounting policies used for the same type of transactions or events.

Cash flow information of a historical nature can be used as an indicator of the amount, timing and certainty of future cash flows. Past forecast cash flow information can be checked for accuracy as actual figures emerge. The relationship between profit and cash flows can be analysed as can changes in prices over time. All this information helps management to control costs by controlling cash flow.
1.4 Definitions

The standard gives the following definitions, the most important of which are **cash** and **cash equivalents**.

**Definitions**

**Cash** comprises cash on hand and demand deposits.

**Cash equivalents** are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

**Cash flows** are inflows and outflows of cash and cash equivalents.

**Operating activities** are the principal revenue-producing activities of the entity and other activities that are not investing or financing activities.

**Investing activities** are the acquisition and disposal of non-current assets and other investments not included in cash equivalents.

**Financing activities** are activities that result in changes in the size and composition of the equity capital and borrowings of the entity. *(IAS 7)*

1.5 Cash and cash equivalents

The Standard expands on the definition of cash equivalents: they are not held for investment or other long-term purposes, but rather to meet short-term cash commitments. To fulfil the above definition, an investment’s **maturity date should normally be three months from its acquisition date**. It would usually be the case then that equity investments (i.e. shares in other companies) are **not** cash equivalents. An exception would be where redeemable preference shares were acquired with a very close redemption date.

**Loans and other borrowings** from banks are classified as financing activities. In some countries, however, **bank overdrafts** are repayable on demand and are treated as part of an entity’s total cash management system. In these circumstances an overdrawn balance will be included in cash and cash equivalents. Such banking arrangements are characterised by a balance which fluctuates between overdrawn (debit) and cash at bank (credit).

**Movements** between different types of cash and cash equivalents are not included in cash flows.

The investment of surplus cash in cash equivalents is part of cash management, not part of operating, investing or financing activities.

1.6 Presentation of a statement of cash flows

**LO 4.3**

**IAS 7** requires statements of cash flows to report cash flows during the period classified by operating, investing and financing activities.

The manner of presentation of cash flows from operating, investing and financing activities depends on the nature of the entity. By classifying cash flows between different activities in this way users can see the impact on cash and cash equivalents of each one, and their relationships with each other. We study each in more detail.

1.6.1 Operating activities

This is perhaps the key part of the statement of cash flows because it shows whether, and to what extent, companies can **generate cash from their operations**. It is these operating cash flows which must, in the end pay for all cash outflows relating to other activities, such as the acquisition of non-current assets.

Most of the components of cash flows from operating activities will be those items which **determine the net profit or loss of the entity**, i.e. they relate to its main revenue-producing activities. The Standard gives the following as examples of cash flows from operating activities:

(a) Cash receipts from the sale of goods and the rendering of services
(b) Cash receipts from royalties, fees, commissions and other revenue
(c) Cash payments to suppliers for goods and services
(d) Cash payments to and on behalf of employees
Certain items may be included in the net profit or loss for the period which do not relate to operational cash flows, for example the profit or loss on the sale of a piece of plant will be included in net profit or loss, but the cash flows will be classed as investing.

1.6.2 Investing activities

The cash flows classified under this heading show the extent of new investment in assets which will generate future profit and cash flows. The Standard gives the following examples of cash flows arising from investing activities:

(a) Cash payments to acquire property, plant and equipment, intangibles and other non-current assets, including those relating to capitalised development costs and self-constructed property, plant and equipment

(b) Cash receipts from sales of property, plant and equipment, intangibles and other non-current assets

(c) Cash payments to acquire shares or loan capital of other entities

(d) Cash receipts from sales of shares or loan capital of other entities

(e) Cash advances and loans made to other parties

(f) Cash receipts from the repayment of advances and loans made to other parties

1.6.3 Financing activities

This section of the statement of cash flows shows the share of cash which the entity’s capital providers have claimed during the period. This is an indicator of likely future interest and dividend payments. The Standard gives the following examples of cash flows which might arise under these headings:

(a) Cash proceeds from issuing shares

(b) Cash payments to owners to acquire or redeem the entity’s shares

(c) Cash proceeds from issuing debentures, loans, notes, bonds, mortgages and other short- or long-term borrowings

(d) Cash repayments of amounts borrowed

1.7 Reporting cash flows from operating activities

The Standard offers a choice of method for this part of the statement of cash flows:

(a) Direct method: disclose major classes of gross cash receipts and gross cash payments.

(b) Indirect method: net profit or loss is adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows.

The direct method discloses information that is not available elsewhere in the financial statements, which could be of use in estimating future cash flows. The indirect method is more widely used in some countries, but in Australia the direct method is used by a large majority of listed companies.

1.7.1 Using the direct method

There are different ways in which the information about gross cash receipts and payments can be obtained. The most obvious way is simply to extract the information from the accounting records. The proforma is shown below.

A proforma for the direct method is given below.

<table>
<thead>
<tr>
<th>Cash flows from operating activities</th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash receipts from customers</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Cash paid to suppliers and employees</td>
<td>(X)</td>
<td></td>
</tr>
<tr>
<td>Cash generated from operations</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Interest paid</td>
<td>(X)</td>
<td></td>
</tr>
<tr>
<td>Income taxes paid</td>
<td>(X)</td>
<td></td>
</tr>
<tr>
<td><strong>Net cash from operating activities</strong></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
1.7.2 Example: the direct method

Boggis Co had the following transactions during the year.

(a) Purchases from suppliers were $19,500, of which $2,550 was unpaid at the year end. Brought forward payables were $1,000.

(b) Wages and salaries amounted to $10,500, of which $750 was unpaid at the year end. The accounts for the previous year showed an accrual for wages and salaries of $1,500.

(c) Interest of $2,100 on a long term loan was paid in the year.

(d) Sales revenue was $33,400, including $900 receivables at the year end. Brought forward receivables were $400.

(e) Interest on cash deposits at the bank amounted to $75.

Calculate the cash flow from operating activities using the direct method.

Solution

Cash flows from operating activities

\[
\begin{align*}
\text{Cash received from customers} & \quad (400 + 33,400 - 900) \quad \text{32,900} \\
\text{Cash paid to suppliers} & \quad (1,000 + 19,500 - 2,550) \quad \text{(17,950)} \\
\text{Cash paid to employees} & \quad (1,500 + 10,500 - 750) \quad \text{(11,250)} \\
\text{Interest paid} & \quad \text{(2,100)} \\
\text{Interest received} & \quad \text{75} \\
\text{Net cash flow from operating activities} & \quad \text{1,675}
\end{align*}
\]

1.7.3 Using the indirect method

The profit or loss from operations for the period is adjusted for the following:

(a) Non-cash items, e.g. depreciation, provisions, profits/losses on the sales of assets

(b) Changes during the period in inventories, operating receivables and payables

A proforma of such a calculation is as follows:

\[
\begin{align*}
\text{Profit before tax (statement of profit or loss)} & \quad \text{X} \\
\text{Add depreciation} & \quad \text{X} \\
\text{Interest expense} & \quad \text{X} \\
\text{Loss (profit) on sale of non-current assets} & \quad \text{X/(X)} \\
\text{(Increase)/decrease in inventories} & \quad \text{(X)/X} \\
\text{(Increase)/decrease in receivables} & \quad \text{(X)/X} \\
\text{Increase/(decrease) in payables} & \quad \text{X/(X)} \\
\text{Cash generated from operations} & \quad \text{X} \\
\text{Interest paid} & \quad \text{(X)} \\
\text{Dividends paid} & \quad \text{(X)} \\
\text{Income taxes paid} & \quad \text{(X)} \\
\text{Net cash flow from operating activities} & \quad \text{X}
\end{align*}
\]
It is important to understand why certain items are added and others subtracted. Note the following points:

(a) Depreciation is not a cash expense, but is deducted in arriving at the profit figure in the statement of profit or loss and other comprehensive income. It makes sense, therefore, to eliminate it by adding it back.

(b) By the same logic, a loss on a disposal of a non-current asset (arising through underprovision of depreciation) needs to be added back and a profit deducted.

(c) An increase in inventories means less cash – you have spent cash on buying inventory.

(d) An increase in receivables means the company’s receivables have not paid as much, and therefore there is less cash.

(e) If we pay off payables, causing the figure to decrease, again we have less cash.

1.7.4 Direct versus indirect
The direct method is encouraged where the necessary information is not too costly to obtain, but IAS 7 does not demand it. It could be argued that companies ought to monitor their cash flows carefully enough on an ongoing basis to be able to use the direct method at minimal extra cost.

1.8 Interest and dividends
IAS 7 requires that cash flows relating to interest and dividends are disclosed separately, and must be classified consistently as either operating, investing or financing activities. In other words there is a choice of classification.

Generally a financial institution will classify interest paid and interest and dividends received as operating cash flows. There is, however, no consensus of opinion on the classification of such cash flows for other entities.

- Interest paid and interest and dividends received may be classified as operating cash flows on the basis that these amounts enter into the determination of profit or loss.
- Interest paid may be classified as a financing cash flow on the basis that this is the cost of obtaining finance.
- Interest and dividends received may be classified as investing cash flows on the basis that these amounts are returns on investments.

Dividends paid may be classified as:

- Financing cash flows on the basis that they represent the cost of obtaining finance, or
- Cash flows from operating activities in order to assist users to determine the ability of an entity to pay dividends from operating cash flows.

In this chapter we do not deal with the statements of cash flows of financial institutions and therefore the following approach is taken unless stated otherwise: interest paid is included as an operating cash flow, dividends paid as a financing cash flow and interest and dividends received as investing cash flows.

1.9 Taxes on income
Cash flows arising from taxes on income should be separately disclosed and should be classified as cash flows from operating activities unless they can be specifically identified with financing and investing activities.

Taxation cash flows are often difficult to match to the originating underlying transaction, so most of the time all tax cash flows are classified as arising from operating activities.

1.10 Example of a statement of cash flows
In the next section we will look at the procedures for preparing a statement of cash flows. First, look at these examples, adapted from the example given in the Standard. Note that the examples shows dividends paid as a financing cash flow.
1.10.1 Direct method

STATEMENT OF CASH FLOWS (DIRECT METHOD) FOR THE YEAR ENDED 31 DECEMBER 20X7

$\text{m}$  \hspace{1cm} $\text{m}$

Cash flows from operating activities
Cash receipts from customers \hspace{1cm} 30 330
Cash paid to suppliers and employees \hspace{1cm} (27 600)
Cash generated from operations \hspace{1cm} 2 730
Interest paid \hspace{1cm} (270)
Income taxes paid \hspace{1cm} (900)

Net cash from operating activities 1 560

Cash flows from investing activities
Purchase of property, plant and equipment \hspace{1cm} (900)
Proceeds from sale of equipment \hspace{1cm} 20
Interest received \hspace{1cm} 200
Dividends received \hspace{1cm} 200

Net cash used in investing activities (480)

Cash flows from financing activities
Proceeds from issuance of share capital \hspace{1cm} 250
Proceeds from long-term borrowings \hspace{1cm} 250
Dividends paid \hspace{1cm} (1 290)

Net cash used in financing activities (790)
Net increase in cash and cash equivalents 290
Cash and cash equivalents at beginning of period (Note) 120
Cash and cash equivalents at end of period (Note) 410

1.10.2 Indirect method

STATEMENT OF CASH FLOWS (INDIRECT METHOD) FOR THE YEAR ENDED 31 DECEMBER 20X7

$\text{m}$  \hspace{1cm} $\text{m}$

Cash flows from operating activities
Profit before taxation \hspace{1cm} 3 570
Adjustments for:
Depreciation \hspace{1cm} 450
Investment income \hspace{1cm} (500)
Interest expense \hspace{1cm} 400
Operating profit before working capital changes \hspace{1cm} 3 920
Increase in trade and other receivables \hspace{1cm} (500)
Decrease in inventories \hspace{1cm} 1 050
Decrease in trade payables \hspace{1cm} (1 740)
Cash generated from operations \hspace{1cm} 2 730
Interest paid \hspace{1cm} (270)
Income taxes paid \hspace{1cm} (900)

Net cash from operating activities 1 560

Cash flows from investing activities
Purchase of property, plant and equipment \hspace{1cm} (900)
Proceeds from sale of equipment \hspace{1cm} 20
Interest received \hspace{1cm} 200
Dividends received \hspace{1cm} 200

Net cash used in investing activities (480)

Cash flows from financing activities
Proceeds from issuance of share capital \hspace{1cm} 250
Proceeds from long-term borrowings \hspace{1cm} 250
Dividends paid \hspace{1cm} (1 290)

Net cash used in financing activities (790)
Net increase in cash and cash equivalents 290
Cash and cash equivalents at beginning of period (Note) 120
Cash and cash equivalents at end of period (Note) 410
Note that the indirect method version of the statement, the following items are treated in a way that might seem confusing, but the treatment is logical if you think in terms of cash:

(a) **Increase in inventory** is treated as negative (in brackets). This is because it represents a cash outflow; cash is being spent on inventory.

(b) An **increase in receivables** would be treated as negative for the same reasons; more receivables means less cash.

(c) By contrast an **increase in payables is positive** because cash is being retained and not used to settle accounts payable. Consequently, more cash remains in the business.

1.11 Components of cash and cash equivalents

The components of cash and cash equivalents should be disclosed and a reconciliation should be presented, showing the amounts in the statement of cash flows reconciled with the equivalent items reported in the statement of financial position.

It is also necessary to disclose the accounting policy used in deciding the items included in cash and cash equivalents, in accordance with IAS 1 *Presentation of financial statements*, but also because of the wide range of cash management practices around the world.

1.11.1 Cash and cash equivalents note: illustration

**Note: Cash and cash equivalents**

Cash and cash equivalents consist of cash on hand and balances with banks, and investments in money market instruments. Cash and cash equivalents included in the statement of cash flows comprise the following statement of financial position amounts:

<table>
<thead>
<tr>
<th></th>
<th>20X7 $m</th>
<th>20X6 $m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on hand and balances with banks</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>Short-term investments</td>
<td>370</td>
<td>95</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>410</td>
<td>120</td>
</tr>
</tbody>
</table>

1.12 Non-cash transactions

Many investing and financing transactions do not have a direct effect upon cash flows, even though they may affect the capital (equity) and assets of an entity. An example of a non-cash transaction would be making a bonus issue of shares.

Investing and financing transactions that do not require the use of cash or cash equivalents should be excluded from the statement of cash flows. These transactions should be disclosed in the notes to the financial statements so as to provide all the relevant information about the entity’s investing and financing activities.

1.13 Other disclosures

All entities should disclose, together with a commentary by management, any other information likely to be of importance, for example:

(a) Restrictions on the use of or access to any part of cash equivalents;

(b) The amount of undrawn borrowing facilities which are available; and

(c) Cash flows which increased operating capacity compared to cash flows which merely maintained operating capacity.

2 Preparing a statement of cash flows

**Section overview**

- You need to be aware of the format of the statement as laid out in IAS 7. Setting out the format is the first step. Then follow the step-by-step preparation procedure.
Although the nature of the Financial Accounting and Reporting exam means that you will not be required to produce a full statement of cash flows, you may be asked to calculate particular amounts within it. Learning how to prepare a full statement of cash flows is an important step as you will then learn and understand the underlying principles which you will be asked to apply in the exam.

2.1 Example: Preparation of a statement of cash flows (indirect method)

Colby Co’s statement of profit or loss for the year ended 31 December 20X2 and statements of financial position at 31 December 20X1 and 31 December 20X2 were as follows:

**COLBY CO**

**STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 20X2**

<table>
<thead>
<tr>
<th></th>
<th>$’000</th>
<th>$’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>720</td>
<td></td>
</tr>
<tr>
<td>Raw materials consumed</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Staff costs</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Loss on disposal of non-current asset</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(300)</td>
<td>420</td>
</tr>
<tr>
<td>Interest payable</td>
<td>(28)</td>
<td></td>
</tr>
<tr>
<td>Profit before tax</td>
<td>392</td>
<td></td>
</tr>
<tr>
<td>Taxation</td>
<td>(124)</td>
<td></td>
</tr>
<tr>
<td>Profit for the period</td>
<td>268</td>
<td></td>
</tr>
</tbody>
</table>

**COLBY CO**

**STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER**

<table>
<thead>
<tr>
<th></th>
<th>20X2</th>
<th>20X1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$’000</td>
<td>$’000</td>
</tr>
<tr>
<td>Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>1 596</td>
<td>1 560</td>
</tr>
<tr>
<td>Depreciation</td>
<td>318</td>
<td>224</td>
</tr>
<tr>
<td></td>
<td>1 278</td>
<td>1 336</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>76</td>
<td>58</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>48</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>148</td>
<td>134</td>
</tr>
<tr>
<td>Total assets</td>
<td>1 426</td>
<td>1 470</td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>396</td>
<td>364</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>716</td>
<td>514</td>
</tr>
<tr>
<td></td>
<td>1 112</td>
<td>878</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current loans</td>
<td>200</td>
<td>500</td>
</tr>
<tr>
<td>Current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade payables</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Taxation</td>
<td>102</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>114</td>
<td>92</td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td>1 426</td>
<td>1 470</td>
</tr>
</tbody>
</table>

During the year, the company paid $90 000 for a new piece of machinery.

Dividends paid during 20X2 totalled $66 000.
Required

Prepare a statement of cash flows for Colby Co for the year ended 31 December 20X2 in accordance with the requirements of IAS 7, using the indirect method.

Solution

Step 1
Set out the proforma statement of cash flows with the headings required by IAS 7. You should leave plenty of space. Ideally, use three or more sheets of paper, one for the main statement, one for the notes and one for your workings. It is obviously essential to know the formats very well.

Step 2
Begin with the reconciliation of profit before tax to net cash from operating activities as far as possible. When preparing the statement from statements of financial position, you will usually have to calculate such items as depreciation, loss on sale of non-current assets, profit for the year and tax paid (see Step 4). Note that you may not be given the tax charge in the statement of profit or loss. You will then have to assume that the tax paid in the year is last year’s year-end liability and calculate the charge as the balancing figure.

Step 3
Calculate the cash flow figures for dividends paid, purchase or sale of non-current assets, issue of shares and repayment of loans if these are not already given to you (as they may be). In order to calculate these amounts, you may find it useful to use T accounts or reconciliation workings: the opening balance in the statement of financial position will reconcile to the closing balance in the statement of financial position by way of profit or loss items and cash flows.

Step 4
If you are not given the profit figure, you will need to calculate this amount. Using opening and closing retained earnings, the taxation charge and dividends paid, you will be able to calculate profit for the year as the balancing figure to put in the net profit to net cash flow from operating activities section.

Step 5
You will now be able to complete the statement by correctly inserting the figures given or calculated above.

<table>
<thead>
<tr>
<th>COLBY CO</th>
</tr>
</thead>
</table>

**STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 20X2**

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net cash flow from operating activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit before tax</td>
<td>392</td>
<td></td>
</tr>
<tr>
<td>Depreciation charges</td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Loss on sale of property, plant and equipment</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Interest expense</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Increase in inventories</td>
<td>(4)</td>
<td></td>
</tr>
<tr>
<td>Increase in receivables</td>
<td>(18)</td>
<td></td>
</tr>
<tr>
<td>Increase in payables</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Cash generated from operations</strong></td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>Interest paid</td>
<td>(28)</td>
<td></td>
</tr>
<tr>
<td>Tax paid (86 + 124 – 102)</td>
<td>(108)</td>
<td></td>
</tr>
<tr>
<td><strong>Net cash flow from operating activities</strong></td>
<td>404</td>
<td></td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments to acquire property, plant and equipment</td>
<td>(90)</td>
<td></td>
</tr>
<tr>
<td>Receipts from sales of property, plant and equipment</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td><strong>Net cash outflow from investing activities</strong></td>
<td>(78)</td>
<td></td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issues of share capital (396 – 364)</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Long-term loans repaid (500 – 200)</td>
<td>(300)</td>
<td></td>
</tr>
<tr>
<td>Dividends paid</td>
<td>(66)</td>
<td></td>
</tr>
<tr>
<td><strong>Net cash flows from financing</strong></td>
<td>(334)</td>
<td></td>
</tr>
<tr>
<td>Decrease in cash and cash equivalents</td>
<td>(8)</td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents at 1.1.X2</td>
<td>56</td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents at 31.12.X2</td>
<td>48</td>
<td></td>
</tr>
</tbody>
</table>
Working: property, plant and equipment

<table>
<thead>
<tr>
<th></th>
<th>COST 20X2</th>
<th>COST 20X1</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 1.1.X2</td>
<td>$1,560</td>
<td>$1,596</td>
</tr>
<tr>
<td>Purchases</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,650</td>
</tr>
<tr>
<td>Disposals (balance)</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$1,650</td>
</tr>
</tbody>
</table>

ACCUMULATED DEPRECIATION

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 31.12.X2</td>
<td>318</td>
<td>224</td>
</tr>
<tr>
<td>Depreciation on disposals (balance)</td>
<td>24</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>342</td>
<td>342</td>
</tr>
<tr>
<td>Carrying amount of disposals (54 – 24)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Net loss reported</td>
<td>(18)</td>
<td></td>
</tr>
<tr>
<td>Proceeds of disposals</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

2.2 Example: Preparation of a statement of cash flows (direct method)

If the direct method is used, the cash flows from operating activities are presented differently. The statement of cash flows shows cash received from customers and cash paid to suppliers and employees, rather than a reconciliation of net profit before tax to the net cash flow from operating activities. Cash flows from investing activities and cash flows from financing activities are calculated and presented in exactly the same way as before.

We will use the financial statements of Colby Co for the year ended 31 December 20X2 to prepare the first part of the statement of cash flows for the year ended 31 December 20X2, using the direct method.

Solution

Step 1 Set out the proforma statement of cash flows with the headings required by IAS 7.

Step 2 Calculate the figure for cash receipts from customers. Cash received from customers is sales for the year (from the statement of profit or loss), plus opening trade receivables, less closing trade receivables (from the statement of financial position).

Step 3 Calculate the figure for cash paid to suppliers and employees. First calculate the figure for purchases: raw materials consumed (from the statement of profit or loss), less opening inventories, plus closing inventories (from the statement of financial position). Then use the purchases figure to calculate the cash outflow: purchases, plus opening trade payables, less closing trade payables (from the statement of financial position). Cash paid to employees can be taken directly from the statement of profit or loss.

Where the statement of profit or loss is presented by function (the more usual method) the calculations can be slightly more complicated. Purchases include cost of sales, plus distribution costs and administrative expenses. If cost of sales and other expenses include depreciation, this must be excluded, as depreciation is not a cash flow. As before, in order to calculate these amounts, you may find it useful to use T accounts or reconciliation workings: the opening balance in the statement of financial position will reconcile to the closing balance in the statement of financial position by way of the profit or loss items and cash flows.

Step 4 You will now be able to complete the statement by correctly inserting the figures given or calculated above. Notice that the figures for cash generated from operations, interest paid and tax paid are exactly the same as under the indirect method.
# COLBY CO

**STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 20X2**

<table>
<thead>
<tr>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td></td>
</tr>
<tr>
<td>Cash receipts from customers</td>
<td>702</td>
</tr>
<tr>
<td>Cash paid to suppliers and employees ($68 + $94)</td>
<td>(162)</td>
</tr>
<tr>
<td>Cash generated from operations</td>
<td>540</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(28)</td>
</tr>
<tr>
<td>Tax paid ($86 + $124 – $102)</td>
<td>(108)</td>
</tr>
<tr>
<td><strong>Net cash flow from operating activities</strong></td>
<td>404</td>
</tr>
</tbody>
</table>

**Workings**

**CASH RECEIPTS FROM CUSTOMERS**

<table>
<thead>
<tr>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 1.1.X2</td>
<td>58</td>
</tr>
<tr>
<td>At 31.12.X2</td>
<td>76</td>
</tr>
<tr>
<td>Sales</td>
<td>720</td>
</tr>
<tr>
<td>Cash received (balance)</td>
<td>702</td>
</tr>
<tr>
<td><strong>778</strong></td>
<td><strong>778</strong></td>
</tr>
</tbody>
</table>

**CASH PAID TO SUPPLIERS**

<table>
<thead>
<tr>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 31.12.X2</td>
<td>12</td>
</tr>
<tr>
<td>At 1.1.X2</td>
<td>6</td>
</tr>
<tr>
<td>Cash paid (balance)</td>
<td>68</td>
</tr>
<tr>
<td>Purchases ($70 – $20 + $24)</td>
<td>74</td>
</tr>
<tr>
<td><strong>80</strong></td>
<td><strong>80</strong></td>
</tr>
</tbody>
</table>

---

**Question 1: Statement of cash flows**

Set out below are the financial statements of Shabnum Co. You are the financial controller, faced with the task of implementing IAS 7 *Statement of cash flows*.

**SHABNUM CO**

**STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 20X2**

<table>
<thead>
<tr>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
</tr>
<tr>
<td>Cost of sales</td>
</tr>
<tr>
<td>Gross profit</td>
</tr>
<tr>
<td>Distribution costs</td>
</tr>
<tr>
<td>Administrative expenses</td>
</tr>
<tr>
<td><strong>350</strong></td>
</tr>
<tr>
<td>Interest received</td>
</tr>
<tr>
<td>Interest paid</td>
</tr>
<tr>
<td>Profit before taxation</td>
</tr>
<tr>
<td>Taxation</td>
</tr>
<tr>
<td>Profit for the period</td>
</tr>
<tr>
<td>Other comprehensive income:</td>
</tr>
<tr>
<td>Surplus on revaluation of property</td>
</tr>
<tr>
<td><strong>Total comprehensive income for the period</strong></td>
</tr>
</tbody>
</table>
SHABNUM CO
STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER

20X2  20X1
$'000  $'000

Assets
Non-current assets
Property, plant and equipment 380  305
Intangible assets 250  200
Investments –  25
Current assets
Inventories 150  102
Receivables 390  315
Short-term investments 50  –
Cash and cash equivalents  2  1
Total assets 1 222  948

Equity and liabilities
Equity
Share capital 360  300
Revaluation reserve 100  91
Retained earnings 260  180
Non-current liabilities
Loan 170  50
Current liabilities
Trade payables 127  119
Bank overdraft 85  98
Taxation 120  110
Total equity and liabilities 1 222  948

The following information is available:
(a) The proceeds of the sale of non-current asset investments amounted to $30 000.
(b) Fixtures and fittings, with an original cost of $85 000 and a carrying amount of $45 000, were sold for $32 000 during the year.
(c) The following information relates to property, plant and equipment:

<table>
<thead>
<tr>
<th></th>
<th>31.12.20X2</th>
<th>31.12.20X1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>340</td>
<td>290</td>
</tr>
<tr>
<td>Carrying amount</td>
<td>380</td>
<td>305</td>
</tr>
</tbody>
</table>

(d) 50 000 ordinary shares were issued during the year.
(e) Dividends totalling $80 000 were paid during the year.
(f) Shabnum Co classifies interest paid as an operating cash flow, dividends paid as a financing cash flow and interest and dividends received as investing cash flows.

Required
Prepare a statement of cash flows for the year to 31 December 20X2 in accordance with the requirements of IAS 7, using the indirect method.

(The answer is at the end of the chapter)
2.3 Calculating cash flows: the basic principle

In the examples above, we used the opening and closing statements of financial position and the statement of profit or loss and other comprehensive income for the year to arrive at a balancing figure: the cash flow for the year. **We can use the same technique to find any cash flow amount.**

We can also use this relationship to calculate figures in the statement of profit or loss and other comprehensive income or statement of financial position using the statement of cash flows and other information.

Example: retained earnings and dividends paid

In the example above, Colby Co, you were given the amount of dividends paid during the year. It would also have been possible to calculate dividends paid from the information in the financial statements.

The statement of financial position shows opening retained earnings and closing retained earnings. The statement of profit or loss shows the net profit for the year. We can use these figures to reconstruct the movements in retained earnings. Closing retained earnings are less than opening retained earnings plus profit for the year. The difference is dividends paid:

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening retained earnings (statement of financial position)</td>
<td>514</td>
</tr>
<tr>
<td>Add: Net profit for the year (statement of profit or loss)</td>
<td>268</td>
</tr>
<tr>
<td>Less: dividends paid (balancing figure)</td>
<td>(66)</td>
</tr>
<tr>
<td>Closing retained earnings (statement of financial position)</td>
<td>716</td>
</tr>
</tbody>
</table>

Question 2: Opening balance

During the year ended 31 December 20X6, Tin Ltd had cash receipts from customers of $220 000 and sales revenue of $250 000. Irrecoverable debts for the year were $10 000. At 31 December 20X6, trade receivables were $70 000.

What amount was shown in the statement of financial position for trade receivables at 1 January 20X6?

A $30 000
B $40 000
C $50 000
D $90 000

(The answer is at the end of the chapter)

Question 3: Cash paid to suppliers

The following information has been extracted from the statement of financial position of Iron Ltd.

<table>
<thead>
<tr>
<th></th>
<th>20X4</th>
<th>20X3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Trade payables and accruals</td>
<td>450</td>
<td>390</td>
</tr>
<tr>
<td>Cost of sales for the year ended 31 December 20X4</td>
<td>$575 000</td>
<td></td>
</tr>
<tr>
<td>Operating expenses for the year</td>
<td>$120 000</td>
<td></td>
</tr>
<tr>
<td>Depreciation for the year (included in cost of sales)</td>
<td>$40 000</td>
<td></td>
</tr>
</tbody>
</table>

What was cash paid to suppliers in respect of purchases and expenses for the year ended 31 December 20X4?

(The answer is at the end of the chapter)
Question 4: Cash flow accounting

Can you think of some possible disadvantages of cash flow accounting?

(The answer is at the end of the chapter)

2.4 The advantages of cash flow accounting

The advantages of cash flow accounting are as follows:

(a) Survival in business depends on the **ability to generate** cash. Cash flow accounting directs attention towards this critical issue.

(b) Cash flow is **more comprehensive** than 'profit' which is dependent on accounting conventions and concepts.

(c) **Creditors** (long- and short-term) are more interested in an entity's ability to repay them than in its profitability. Whereas 'profits' might indicate that cash is likely to be available, cash flow accounting is more direct with its message.

(d) Cash flow reporting provides a better means of comparing the results of different companies than traditional profit reporting.

(e) Cash flow reporting **satisfies the needs of all users** better.

(i) For **management**, it provides the sort of information on which decisions should be taken: (in management accounting, 'relevant costs' to a decision are future cash flows); traditional profit accounting does not help with decision-making.

(ii) For **shareholders and auditors**, cash flow accounting can provide a satisfactory basis for stewardship accounting.

(iii) As described previously, the information needs of **creditors and employees** will be better served by cash flow accounting.

(f) Cash flow forecasts are **easier to prepare**, as well as more useful, than profit forecasts.

(g) They can in some respects be **audited more easily** than accounts based on the accruals concept.

(h) The accruals concept is confusing, and cash flows are **more easily understood**.

(i) Cash flow accounting should be both retrospective and also include a forecast for the future. This is of **great information value** to all users of accounting information.

(j) **Forecasts** can subsequently be **monitored** by the publication of variance statements which compare actual cash flows against the forecast.

2.5 Criticisms of IAS 7

The inclusion of **cash equivalents** has been criticised because it does not reflect the way in which businesses are managed: in particular, the requirement that to be a cash equivalent an investment has to be within three months of maturity is considered **unrealistic**.

The management of assets similar to cash (i.e. 'cash equivalents') is not distinguished from other investment decisions.
Key chapter points

- A statement of cash flows concentrates on the sources and uses of cash and is a useful indicator of a company’s liquidity and solvency.
- A company cannot survive without cash and therefore cash flow is at least as important as profits. It is also factual and not affected by accounting policies or estimates.
- The statement of cash flows provides historical information about cash and cash equivalents, classifying cash flows between operating, investing and financing activities.
- Cash comprises cash in hand and demand deposits. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.
- Cash flows from operating activities include:
  (a) Cash receipts from the sale of goods and the rendering of services
  (b) Cash receipts from royalties, fees, commissions and other revenue
  (c) Cash payments to suppliers for goods and services
  (d) Cash payments to and on behalf of employees
- The direct or indirect method may be used to report cash flows from operating activities.
- Cash flows arising from investing activities include:
  (a) Cash payments to acquire property, plant and equipment, intangibles and other non-current assets, including those relating to capitalised development costs and self-constructed property, plant and equipment
  (b) Cash receipts from sales of property, plant and equipment, intangibles and other non-current assets
  (c) Cash payments to acquire shares or loan capital of other entities
  (d) Cash receipts from sales of shares or loan capital of other entities
  (e) Cash advances and loans made to other parties
  (f) Cash receipts from the repayment of advances and loans made to other parties
- Cash flows from financing activities include:
  (a) Cash proceeds from issuing shares
  (b) Cash payments to owners to acquire or redeem the entity’s shares
  (c) Cash proceeds from issuing debentures, loans, notes, bonds, mortgages and other short or long-term borrowings
  (d) Cash repayments of amounts borrowed
- Interest and dividend cash flows may be classified as either operating, investing or financing cash flows, however a consistent approach must be taken.
Quick revision questions

1. Which of the following items could appear in a company's statement of cash flows?
   I. Surplus on revaluation of non-current assets
   II. Proceeds of issue of shares
   III. Proposed dividend
   IV. Irrecoverable debts written off
   V. Dividends received
   A. I, II and V only
   B. II and V only
   C. III and IV only
   D. III, IV and V only

2. Part of the process of preparing a company's statement of cash flows is the calculation of cash inflow from operating activities.
   Which of the following statements about that calculation (using the indirect method) are correct?
   I. Loss on sale of operating non-current assets should be deducted from net profit before taxation.
   II. Increase in inventory should be deducted from operating profits.
   III. Increase in payables should be added to operating profits.
   IV. Depreciation charges should be added to net profit before taxation.
   A. I, II and III only
   B. I, II and IV only
   C. I, III and IV only
   D. II, III and IV only

3. In the course of preparing a company's statement of cash flows, the following figures are to be included in the calculation of net cash from operating activities.

   $\hspace{1cm}$
   Depreciation charges 980 000
   Profit on sale of non-current assets 40 000
   Increase in inventories 130 000
   Decrease in receivables 100 000
   Increase in payables 80 000

   What will the net effect of these items be in the statement of cash flows?

   $\hspace{1cm}$
   A. Addition to operating profit 890 000
   B. Subtraction from operating profit 890 000
   C. Addition to operating profit 990 000
   D. Addition to operating profit 1 070 000

4. Part of a company's draft statement of operating cash flows is shown below:

   $'000$
   Operating profit 8 640
   Depreciation charges (2 160)
   Proceeds of sale of non-current assets 360
   Increase in inventory (330)
   Increase in accounts payable 440
The following criticisms of the above extract have been made:

I Depreciation charges should have been added, not deducted.
II Increase in inventory should have been added, not deducted.
III Increase in accounts payable should have been deducted, not added.
IV Proceeds of sale of non-current assets should not appear in this part of the statement of cash flows.

Which of these criticisms are valid?

A I and III only
B I and IV only
C II and III only
D II and IV only

5 A company has the following information about property, plant and equipment:

<table>
<thead>
<tr>
<th></th>
<th>20X7 $'000</th>
<th>20X6 $'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>750</td>
<td>600</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>250</td>
<td>150</td>
</tr>
<tr>
<td>Carrying amount</td>
<td>500</td>
<td>450</td>
</tr>
</tbody>
</table>

Plant with a carrying amount of $75 000 (original cost $90 000) was sold for $30 000 during the year.

What is the cash flow from investing activities for the year?

A $95 000 inflow
B $95 000 outflow
C $210 000 inflow
D $210 000 outflow

6 A company provides the following extract from a statement of financial position:

<table>
<thead>
<tr>
<th></th>
<th>20X7 $'000</th>
<th>20X6 $'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share capital</td>
<td>2 500</td>
<td>1 000</td>
</tr>
<tr>
<td>Loans</td>
<td>750</td>
<td>1 000</td>
</tr>
</tbody>
</table>

What is the cash flow from financing activities for the year?

A $1 250 000 inflow
B $1 250 000 outflow
C $1 750 000 inflow
D $1 750 000 outflow

7 In the year ended 31 December 20X4 a company sold some plant which had cost $100 000 for $20 000. At the time of sale the carrying amount of the plant was $18 000.

Which of the following correctly states the treatment of the transaction in the company’s statement of cash flows?

<table>
<thead>
<tr>
<th>Proceeds of sale</th>
<th>Profit on sale</th>
</tr>
</thead>
<tbody>
<tr>
<td>A cash inflow under financing activities</td>
<td>added to profit in calculating cash flow from operating activities</td>
</tr>
<tr>
<td>B cash inflow under financing activities</td>
<td>deducted from profit in calculating cash flow from operating activities</td>
</tr>
<tr>
<td>C cash inflow under investing activities</td>
<td>added to profit in calculating cash flow from operating activities</td>
</tr>
<tr>
<td>D cash inflow under investing activities</td>
<td>deducted from profit in calculating cash flow from operating activities</td>
</tr>
</tbody>
</table>
8. A company's statements of financial position at 31 December 20X4 and 20X5 included the following items:

<table>
<thead>
<tr>
<th></th>
<th>31.12.X5</th>
<th>31.12.X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxation payable</td>
<td>840</td>
<td>760</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>1 660</td>
<td>1 470</td>
</tr>
</tbody>
</table>

The company paid no interest or interim dividends during these years, and the tax liability of $760 000 in the 20X4 statement of financial position was the amount paid in 20X5. Using this information, what is the company's operating profit for 20X5 for inclusion in its statement of cash flows?

A $190 000  
B $950 000  
C $1 030 000  
D $1 660 000

9. The statements of financial position of R, a limited liability company, at 31 December 20X3 and 20X4 included these figures:

<table>
<thead>
<tr>
<th></th>
<th>20X3</th>
<th>20X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment: cost</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>(10)</td>
<td>(14)</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>36</td>
</tr>
</tbody>
</table>

The statement of profit or loss and other comprehensive income for the year ended 31 December 20X4 showed the following figures:

- Depreciation charge for year: $6m
- Loss on sales of property, plant and equipment: $1m

The company purchased new property, plant and equipment costing $16m during the year. What figure should appear in the company's statement of cash flows for 20X4 for receipts from the sale of property, plant and equipment?

A $3m  
B $4m  
C $5m  
D The figure cannot be calculated from the information provided.

10. At 1 October 20X4, BK had the following balance:

- Accrued interest payable: $12 000 credit

During the year ended 30 September 20X5, BK charged interest payable of $41 000 to its statement of profit or loss and other comprehensive income. The closing balance on accrued interest payable account at 30 September 20X5 was $15 000 credit.

How much interest paid should BK show in its statement of cash flows for the year ended 30 September 20X5?

A $38 000  
B $41 000  
C $44 000  
D $53 000
Answers to quick revision questions

1. B  Only the proceeds of a share issue and dividends received involve the movement of cash.

2. D  Loss on sale of non-current assets should be added back to net profit before tax.

3. C  
   \[
   \begin{align*}
   \text{Add: depreciation charge} & \quad 980,000 \\
   \text{Less: profit on sale of assets} & \quad (40,000) \\
   \text{Less: increase in inventories} & \quad (130,000) \\
   \text{Add: decrease in receivables} & \quad 100,000 \\
   \text{Add: increase in payables} & \quad 80,000 \\
   \text{Addition to operating profit} & \quad 990,000
   \end{align*}
   \]

4. B  Depreciation should be added back as it not a cash flow and proceeds of sale of non-current assets appears under ‘investing’ cash flows.

5. D  
   \[
   \begin{array}{c|c|c}
   \text{PROPERTY, PLANT AND EQUIPMENT} & \text{'}000 & \text{'}000 \\
   \hline
   \text{Opening balance} & 600 & 90 \\
   \text{Purchases (balancing figure)} & 240 & 750 \\
   \text{Closing balance} & 840 & 840 \\
   \text{Purchase of property, plant and equipment} & 240,000 & \\
   \text{Proceeds of sale of property, plant and equipment} & (30,000) & \\
   \text{Net cash outflow} & 210,000 & \\
   \end{array}
   \]

6. A  
   \[
   \begin{align*}
   \text{Issue of share capital (2,500 – 1,000)} & \quad 1,500 \\
   \text{Repayment of loans (1,000 – 750)} & \quad (250) \\
   \text{Net cash inflow} & \quad 1,250
   \end{align*}
   \]

7. D  Profit on disposal will be included in profit, so should be deducted.

8. C  
   \[
   \begin{align*}
   \text{Retained earnings 31.12.X5} & \quad 1,660 \\
   \text{Retained earnings 31.12.X4} & \quad 1,470 \\
   \therefore \text{Post tax profit for 20X5} & \quad 190 \\
   \text{Add back tax charge*} & \quad 840 \\
   \text{Post tax profit for 20X5} & \quad 1,030
   \end{align*}
   \]

* Note. This is the current liability at 31.12.X5, just as the 20X4 charge is the current liability at 31.12.X4.
### PROPERTY, PLANT AND EQUIPMENT: COST

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening balance</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Cash – additions</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td><strong>Transfer disposal (balancing figure)</strong></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Closing balance</strong></td>
<td>50</td>
<td><strong>56</strong></td>
</tr>
</tbody>
</table>

### PROPERTY, PLANT AND EQUIPMENT: ACCUMULATED DEPRECIATION

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening balance</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Transfer disposal (balancing figure)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Closing balance</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td><strong>Profit or loss</strong></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Closing balance</strong></td>
<td>16</td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### PROPERTY, PLANT AND EQUIPMENT: DISPOSAL

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer cost</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Transfer depreciation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Loss on sale</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Proceeds of sale (balancing figure)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Proceeds of sale</strong></td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

10 A Interest paid = $38 000

### INTEREST PAYABLE

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash paid (bal fig)</td>
<td>38 000</td>
<td></td>
</tr>
<tr>
<td>Closing balance</td>
<td>15 000</td>
<td></td>
</tr>
<tr>
<td><strong>Opening balance</strong></td>
<td>12 000</td>
<td></td>
</tr>
<tr>
<td><strong>Profit or loss</strong></td>
<td>41 000</td>
<td><strong>53 000</strong></td>
</tr>
</tbody>
</table>
Answers to chapter questions

1 SHABNUM CO
STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 20X2

<table>
<thead>
<tr>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net cash flows from operating activities</strong></td>
<td></td>
</tr>
<tr>
<td>Profit before tax</td>
<td>300</td>
</tr>
<tr>
<td>Depreciation charge (W1)</td>
<td>90</td>
</tr>
<tr>
<td>Interest expense</td>
<td>50</td>
</tr>
<tr>
<td>Loss on sale of property, plant and equipment (45 – 32)</td>
<td>13</td>
</tr>
<tr>
<td>Profit on sale of non-current asset investments</td>
<td>(5)</td>
</tr>
<tr>
<td>(Increase)/decrease in inventories</td>
<td>(48)</td>
</tr>
<tr>
<td>(Increase)/decrease in receivables</td>
<td>(75)</td>
</tr>
<tr>
<td>Increase/(decrease) in payables</td>
<td>8</td>
</tr>
<tr>
<td><strong>Cash generated from operating activities</strong></td>
<td>333</td>
</tr>
<tr>
<td>Interest paid</td>
<td>(75)</td>
</tr>
<tr>
<td>Tax paid (110 + 140 – 120)</td>
<td>(130)</td>
</tr>
<tr>
<td><strong>Net cash flow from operating activities</strong></td>
<td>128</td>
</tr>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
</tr>
<tr>
<td>Payments to acquire property, plant and equipment (W2)</td>
<td>(201)</td>
</tr>
<tr>
<td>Payments to acquire intangible non-current assets</td>
<td>(50)</td>
</tr>
<tr>
<td>Receipts from sales of property, plant and equipment</td>
<td>32</td>
</tr>
<tr>
<td>Receipts from sale of non-current asset investments</td>
<td>30</td>
</tr>
<tr>
<td>Interest received</td>
<td>25</td>
</tr>
<tr>
<td><strong>Net cash flows from investing activities</strong></td>
<td>(164)</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td></td>
</tr>
<tr>
<td>Issue of share capital</td>
<td>60</td>
</tr>
<tr>
<td>Long-term loan</td>
<td>120</td>
</tr>
<tr>
<td>Dividends paid</td>
<td>(80)</td>
</tr>
<tr>
<td><strong>Net cash flows from financing</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>Increase in cash and cash equivalents</strong> (Note)</td>
<td>64</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents at 1.1.X2</strong> (Note)</td>
<td>(97)</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents at 31.12.X2</strong> (Note)</td>
<td>(33)</td>
</tr>
</tbody>
</table>

NOTES TO THE STATEMENT OF CASH FLOWS

Note: Analysis of the balances of cash and cash equivalents as shown in the statement of financial position

<table>
<thead>
<tr>
<th>20X2</th>
<th>20X1</th>
</tr>
</thead>
<tbody>
<tr>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Cash in hand</td>
<td>2</td>
</tr>
<tr>
<td>Short term investments</td>
<td>50</td>
</tr>
<tr>
<td>Bank overdraft</td>
<td>(85)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>(33)</td>
</tr>
</tbody>
</table>
Workings

(1) **Depreciation charge**

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation at 31 December 20X2</td>
<td></td>
<td>340</td>
</tr>
<tr>
<td>Depreciation 31 December 20X1</td>
<td></td>
<td>290</td>
</tr>
<tr>
<td>Depreciation on assets sold (85 – 45)</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td><strong>Charge for the year</strong></td>
<td></td>
<td>250</td>
</tr>
</tbody>
</table>

(2) **Purchase of property, plant and equipment**

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.X2 Balance b/d</td>
<td>595</td>
<td>85</td>
</tr>
<tr>
<td>Revaluation (OCI)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Purchases (bal fig)</td>
<td>201</td>
<td>31.12.X2 Balance c/d</td>
</tr>
<tr>
<td></td>
<td>805</td>
<td>805</td>
</tr>
</tbody>
</table>

**Note:** In this answer, dividends paid have been presented under operating activities, but it would also be acceptable to include them under financing activities and/or investing activities.

2 The answer is C.

**TRADE RECEIVABLES**

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 1.1.X6 (balance)</td>
<td>50</td>
<td>220</td>
</tr>
<tr>
<td>Sales</td>
<td>250</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>300</td>
</tr>
</tbody>
</table>

3 The answer is $625 000.

**TRADE PAYABLES AND ACCRUALS**

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>At 31.12.X4</td>
<td>220</td>
<td>130</td>
</tr>
<tr>
<td>Cash paid (balance)</td>
<td>625</td>
<td>715</td>
</tr>
<tr>
<td></td>
<td>845</td>
<td>845</td>
</tr>
</tbody>
</table>

Purchases:

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of sales:</td>
<td>575</td>
</tr>
<tr>
<td>Less: depreciation</td>
<td>(40)</td>
</tr>
<tr>
<td>Less: opening inventories</td>
<td>(390)</td>
</tr>
<tr>
<td>Add: closing inventories</td>
<td>450</td>
</tr>
<tr>
<td>Purchases</td>
<td>595</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>120</td>
</tr>
<tr>
<td>Purchases and expenses</td>
<td>715</td>
</tr>
</tbody>
</table>

4 The main disadvantages of cash flow accounting are essentially the advantages of accruals accounting (proper matching of related items). There is also the practical problem that few businesses keep historical cash flow information in the form needed to prepare a historical statement of cash flows and so extra record-keeping is likely to be necessary.

A problem common to all financial statements is that cash flow information is historic, however users are more interested in forward looking information. A further drawback is the possibility of manipulation of cash flows. For example, a business may delay making large payments to suppliers until after the end of the accounting period.
Chapter 5

Inventory and property, plant and equipment

Learning objectives

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of profit or loss and other comprehensive income</td>
<td>LO2</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit or loss and other comprehensive income; statement of changes in equity; and statement of financial position</td>
<td>LO2.2</td>
</tr>
<tr>
<td>Statement of financial position</td>
<td>LO3</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit or loss and other comprehensive income; statement of changes in equity; and statement of financial position</td>
<td>LO3.1</td>
</tr>
</tbody>
</table>

Topic list

1. Inventory
2. Cost of property, plant and equipment
3. Borrowing costs and property, plant and equipment
4. Depreciation of property, plant and equipment
5. Revaluation of property, plant and equipment
6. Disposal of property, plant and equipment
7. Disclosure of property, plant and equipment
*Introduction*

Inventory and short-term work-in-progress valuation has a direct impact on a company’s gross profit and it is usually a material item in any company’s accounts. This is therefore an important subject area. Property, plant and equipment (PPE) is the largest balance in many companies’ statement of financial position. This chapter explains which elements of the cost of an item of PPE may be capitalised, how that cost is depreciated, under what circumstances the asset may be revalued and how a disposal is accounted for.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. How should inventory be valued? (Section 1.3)
2. What does the cost of inventory include? (Section 1.3)
3. The cost of interchangeable items may be allocated using the methods of ................................................................. or .................................................................. (Section 1.4.1)
4. How is an item of property, plant and equipment measured in the financial statements? (Sections 2 to 5)
5. When can subsequent expenditure on a non-current asset be capitalised? (Section 2.5 and 2.6)
6. When can borrowing costs be capitalised as part of the cost of a non-current asset? (Sections 3.2.1 and 3.2.2)
7. What is the purpose of depreciation? (Section 4.1.1)
8. How should a change in useful life/residual value be accounted for? (Sections 4.4 and 4.5)
9. What are the IAS 16 rules with regard to revaluations? (Section 5.2)
10. Where is a revaluation surplus recorded? (Section 5.2)
11. Where a revalued asset is disposed of, what accounting entry is required in respect of any remaining balance on the revaluation reserve (revaluation surplus) relating to the asset? (Section 6.2)
1 Inventory

Section overview
- Inventory is measured at the lower of cost and net realisable value.

In most businesses the value put on inventory is an important factor in the determination of profit. Inventory valuation is, however, a highly subjective exercise and consequently there is a wide variety of different methods used in practice.

1.1 IAS 2 Inventories

IAS 2 lays out the required accounting treatment for inventories (sometimes called stocks) under the historical cost system. The major area of contention is the cost value of inventory to be recorded. This is recognised as an asset of the entity until the related revenues are recognised (i.e. the item is sold) at which point the inventory is recognised as an expense (i.e. cost of sales). Part or all of the cost of inventories may also be expensed if a write-down to net realisable value is necessary.

In other words, the fundamental accounting assumption of accruals requires costs to be matched with associated revenues. In order to achieve this, costs incurred for goods which remain unsold at the year end must be carried forward in the statement of financial position and matched against future revenues.

1.2 Definitions

The Standard gives the following important definitions:

**Definitions**

**Inventories** are assets:
- held for sale in the ordinary course of business;
- in the process of production for such sale; or
- in the form of materials or supplies to be consumed in the production process or in the rendering of services.

**Net realisable value** is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

**Fair value** is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (IAS 2)

Inventories can include any of the following.
- **Goods purchased and held for resale**, e.g. goods held for sale by a retailer
- **Finished goods** produced
- **Work in progress** being produced
- Materials and supplies awaiting use in the production process (**raw materials**)

1.3 Cost of inventories

The Standard states that 'Inventories should be measured at the lower of cost and net realisable value.'

The cost of inventories will consist of the:
- **Costs of Purchase**
- **Costs of conversion**
- **Other costs** incurred in bringing the inventories to their present location and condition
1.3.1 Costs of purchase

The Standard lists the following as comprising the costs of purchase of inventories:

- **Purchase price, plus**
- **Import duties and other taxes, plus**
- Transport, handling and any other cost **directly attributable** to the acquisition of finished goods, services and materials; less
- **Trade discounts, rebates and other similar amounts**

1.3.2 Costs of conversion

Costs of conversion of inventories consist of two main parts:

(a) Costs **directly related** to the units of production, e.g. direct materials, direct labour;

(b) Fixed and variable **production overheads** that are incurred in converting materials into finished goods, allocated on a systematic basis.

You may have come across the terms 'fixed production overheads' or 'variable production overheads' elsewhere in your studies. The Standard defines them as follows:

**Definitions**

**Fixed production overheads** are those indirect costs of production that remain relatively constant regardless of the volume of production, e.g. the cost of factory management and administration.

**Variable production overheads** are those indirect costs of production that vary directly, or nearly directly, with the volume of production, e.g. indirect materials and labour.

The Standard emphasises that fixed production overheads must be allocated to items of inventory on the basis of the **normal capacity of the production facilities**.

1.3.3 Other costs

Any other costs should only be recognised if they are incurred in bringing the inventories to their **present location and condition**.

The Standard lists types of cost which **would not be included** in cost of inventories. Instead, they should be recognised as an **expense** in the period they are incurred.

(a) Abnormal amounts of wasted materials, labour or other production costs

(b) Storage costs (except costs which are necessary in the production process before a further production stage)

(c) Administrative overheads not incurred to bring inventories to their present location and condition

(d) Selling costs

1.4 Cost formulae

Cost of inventories should be assigned by **specific identification** of their individual costs for:

(a) Items that are **not ordinarily interchangeable** (such as motor vehicles in a showroom)

(b) Goods or services produced and segregated for **specific projects**

Specific costs should be attributed to individual items of inventory when they are segregated for a specific project, but not where inventories consist of a large number of interchangeable (i.e. identical or very similar) items. In the latter case the rule is as specified below.
1.4.1 Interchangeable items

**Rule to learn**

The cost of inventories should be assigned by using the *first-in, first-out (FIFO)* or *weighted average* cost formulae. The LIFO formula (last in, first out) is *not permitted* by IAS 2.

You should be familiar with these methods from the Foundations of Accounting paper. Under the weighted average cost method, a recalculation can be made after each purchase, or alternatively only at the period end.

1.5 Net realisable value (NRV)

Net realisable value is the selling price of an item of inventory less the costs which must be incurred in order to make the sale.

As a general rule assets should not be carried at amounts greater than those expected to be realised from their sale or use. In the case of inventories this amount could fall below cost when items are damaged or become obsolete, or where the costs to completion have increased in order to make the sale.

In fact, we can identify the principal situations in which NRV is likely to be less than cost, i.e. where there has been:

(a) An *increase in costs* or a *fall in selling price*.
(b) A *physical deterioration* in the condition of inventory.
(c) *Obsolescence* of products.
(d) A decision as part of the company’s marketing strategy to manufacture and sell products at a *loss*.
(e) *Errors in production or purchasing.*

A write down of inventories would normally take place on an item by item basis, but similar or related items may be grouped together. This grouping together is acceptable for, say, items in the same product line, but it is not acceptable to write down inventories based on a whole classification (e.g. finished goods) or a whole business.

The assessment of NRV should take place at the same time as estimates are made of selling price, using the most reliable information available. Fluctuations of price or cost should be taken into account if they relate directly to events after the reporting period, which confirm conditions existing at the end of the period.

The reasons why inventory is held must also be taken into account. Some inventory, for example, may be held to satisfy a firm contract and its NRV will therefore be the contract price. Any additional inventory of the same type held at the period end will, in contrast, be assessed according to general sales prices when NRV is estimated.

Net realisable value must be reassessed at the end of each period and compared again with cost. If the NRV has risen for inventories held over the end of more than one period, then the previous write down must be reversed to the extent that the inventory is then valued at the lower of cost and the new NRV. This may be possible when selling prices have fallen in the past and then risen again.

On occasion, a write down to NRV may be of such size, incidence or nature that it must be disclosed separately.

1.6 Recognition as an expense

The following treatment is required when inventories are sold:

(a) The *carrying amount* is recognised as an expense in the period in which the related revenue is recognised.
(b) The amount of any write-down of inventories to NRV and all losses of inventories are recognised as an expense in the period the write-down or loss occurs.

(c) The amount of any reversal of any write-down of inventories, arising from an increase in NRV, is recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

### 1.7 Consistency – different cost formulae for inventories

IAS 2 allows two cost formulae (FIFO or weighted average cost) for inventories that are ordinarily interchangeable or are not produced and segregated for specific projects. The issue is whether an entity may use different cost formulae for different types of inventories.

IAS 2 provides that an entity should use the same cost formula for all inventories having similar nature and use to the entity. For inventories with different nature or use (for example, certain commodities used in one business segment and the same type of commodities used in another business segment), different cost formulae may be justified. A difference in the geographical location of inventories (and in the respective tax rules), by itself, is not sufficient to justify the use of different cost formulae.

### 2 Cost of property, plant and equipment

**Section overview**

- Property, plant and equipment is initially recognised at cost; subsequent costs are capitalised if they meet the definition of an asset.

#### 2.1 Definitions

The Standard gives a large number of definitions.

**Definitions**

Property, plant and equipment are tangible assets that:

- Are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

- Are expected to be used during more than one period.

**Cost** is the amount of cash or cash equivalents paid or the fair value of the other consideration given to acquire an asset at the time of its acquisition or construction.

**Residual value** is the net amount which the entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

**Carrying amount** is the amount at which an asset is recognised in the statement of financial position after deducting any accumulated depreciation and accumulated impairment losses.

An impairment loss is the amount by which the carrying amount of an asset exceeds its recoverable amount. *(IAS 16)*

#### 2.2 Recognition

Property, plant and equipment is recognised as a non-current asset in the statement of financial position if:

(a) It is probable that future economic benefits associated with the asset will flow to the entity, and

(b) The cost of the asset to the entity can be measured reliably.
Property, plant and equipment is normally a **substantial item** in financial statements. It affects the presentation of the company’s financial position and the profitability of the entity, through depreciation. If an asset is wrongly classified as an expense and taken to profit or loss this may also have a material effect on an entity’s profit or loss.

### 2.2.1 First criterion: future economic benefits

An entity should assess the **degree of certainty** attached to the flow of future economic benefits. This assessment should be based on the evidence available at the date of initial recognition (usually the date of purchase). It should be **probable** that the entity will receive the rewards attached to the asset and that it will incur the associated risks. Generally, this will only be the case when the rewards and risks have actually passed to the entity. Until then, the asset should not be recognised.

### 2.2.2 Second criterion: cost measured reliably

It is generally easy to measure the cost of an asset as the **transfer amount on purchase**, i.e. what was paid for it. **Self-constructed assets** can also be measured easily by adding together the purchase price of all the constituent parts (labour, material, and so on) paid to external parties.

### 2.3 Initial measurement

Once an item of property, plant and equipment qualifies for recognition as an asset, it will initially be **measured at cost**.

#### 2.3.1 Components of cost

The Standard lists the components of the cost of an item of property, plant and equipment:

- **Purchase price**, less any trade discount or rebate
- **Import duties** and non-refundable purchase taxes
- **Directly attributable costs** of bringing the asset to working condition for its intended use, for example:
  - The cost of site preparation
  - Initial delivery and handling costs
  - Installation costs
  - Testing
  - Professional fees (architects, engineers)
- Initial estimate of the unavoidable cost of dismantling and removing the asset and restoring the site on which it is located

**IAS 16** provides **additional guidance on directly attributable** costs included in the cost of an item of property, plant and equipment:

(a) These costs bring the asset to the location and working conditions necessary for it to be capable of operating in the manner intended by management, including those costs to test whether the asset is functioning properly.

(b) They are determined after deducting the net proceeds from selling any items produced when bringing the asset to its location and condition.

In some cases borrowing costs relating to the construction of assets are also capitalised as part of the cost of those assets. This is covered in more detail in Section 3 of this chapter.

The Standard also states that income and related expenses of operations that are **incidental** to the construction or development of an item of property, plant and equipment should be **recognised** in profit or loss.
The following costs will not be part of the cost of property, plant or equipment unless they can be attributed directly to the asset’s acquisition, or bringing it into its working condition:

- Administration and other general overhead costs
- Start-up and similar pre-production costs
- Initial operating losses before the asset reaches planned performance.

All of these costs will be recognised as an expense rather than an asset.

In the case of self-constructed assets, the same principles are applied as for acquired assets. If the entity makes similar assets during the normal course of business for sale externally, then the cost of the asset will be the cost of its production under IAS 2 Inventories. This also means that abnormal costs (wasted material, labour or other resources) are excluded from the cost of the asset. An example of a self-constructed asset is when a building company builds its own head office.

2.3.2 Exchanges of assets

IAS 16 specifies that exchanges of items of property, plant and equipment, regardless of whether the assets are similar, are measured at fair value, unless the exchange transaction lacks commercial substance or the fair value of neither of the assets exchanged can be measured reliably. If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.

Expenditure incurred in replacing or renewing a component of an item of property, plant and equipment must be recognised in the carrying amount of the item. The carrying amount of the replaced or renewed component must be derecognised. A similar approach is also applied when a separate component of an item of property, plant and equipment is identified in respect of a major inspection to enable the continued use of the item.

2.4 Complex assets

Most of the time assets will be identified individually, but this will not be the case for smaller items, such as tools, dies and moulds, which are sometimes classified as inventory and written off as an expense.

Items such as spare parts, stand-by equipment and servicing equipment are recognised as property, plant and equipment when they meet the definition. Otherwise, they are classified as inventory.

For complex assets, an apparently single asset should be broken down into its composite parts. This occurs where the different parts have different useful lives and different depreciation rates are applied to each part, e.g. an aircraft, where the body and engines are separated as they have different useful lives.

2.5 Safety and environmental equipment

Sometimes an entity acquires assets for safety or environmental reasons. For example, a chemical manufacturer may need special equipment that enables it to store chemicals safely.

These items may be necessary for the entity to obtain future economic benefits from its other assets. For this reason they are recognised as assets. However the original assets plus the safety equipment should be reviewed for impairment.

2.6 Subsequent expenditure

The recognition criteria discussed above apply to both initial expenditure on a non-current asset and subsequent expenditure.

Repairs and maintenance costs are not considered to result in probable future economic benefits and therefore they are not capitalised as a non-current asset. Instead they are expensed to profit or loss.

An example of subsequent expenditure which will result in probable future economic benefits is an extension to a building which creates capacity to earn additional revenues.
3 Borrowing costs and property, plant and equipment

Section overview

- IAS 23 requires that eligible borrowing costs are capitalised as part of the cost of a non-current asset.

3.1 Definitions

Only two definitions are given by the Standard:

**Definitions**

**Borrowing costs.** Interest and other costs incurred by an entity in connection with the borrowing of funds.

**Qualifying asset.** An asset that necessarily takes a substantial period of time to get ready for its intended use or sale. (IAS 23)

The Standard gives examples of qualifying assets.

- Inventories that require a substantial period of time to bring them to a saleable condition
- Manufacturing plants
- Power generation facilities
- Investment properties

Inventories produced in bulk over short periods and on a regular basis are not qualifying assets, nor are assets ready for sale or their intended use when purchased.

3.2 Capitalisation of borrowing costs

IAS 23 requires that all eligible borrowing costs are **capitalised**.

Only borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset can be capitalised as part of the cost of that asset. The Standard lays out the criteria for determining which borrowing costs are eligible for capitalisation.

3.2.1 Borrowing costs eligible for capitalisation

Those borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset must be identified. These are the borrowing costs that would have been avoided had the expenditure on the qualifying asset not been made. This is obviously straightforward where funds have been borrowed for the financing of one particular asset.

Difficulties arise, however, where the entity uses a range of debt instruments to finance a wide range of assets, so that there is no direct relationship between particular borrowings and a specific asset. For example, all borrowings may be made centrally and then lent to different parts of the group or entity. Judgment is therefore required, particularly where further complications can arise (e.g. foreign currency loans).

Once the relevant borrowings are identified, which relate to a specific asset, then the amount of borrowing costs available for capitalisation will be the actual borrowing costs incurred on those borrowings during the period, less any investment income on the temporary investment of those borrowings. It would not be unusual for some or all of the funds to be invested before they are actually used on the qualifying asset.

**Question 1: Capitalisation**

On 1 January 20X6 Stremans Co borrowed $1.5m to finance the production of two assets, both of which were expected to take a year to build. Work started during 20X6. The loan facility was drawn down and incurred on 1 January 20X6, and was utilised as follows, with the remaining funds invested temporarily.
Inventory and property, plant and equipment

The loan rate was 9% and Stremans Co can invest surplus funds at 7%.

Required

Ignoring compound interest, calculate the borrowing costs which may be capitalised for each of the assets and consequently the cost of each asset as at 31 December 20X6.

(The answer is at the end of the chapter)

In a situation where borrowings are obtained generally, but are applied in part to obtaining a qualifying asset, then the amount of borrowing costs eligible for capitalisation is found by applying the ‘capitalisation rate’ to the expenditure on the asset.

The capitalisation rate is the weighted average of the borrowing costs applicable to the entity’s borrowings that are outstanding during the period, excluding borrowings made specifically to obtain a qualifying asset. However, there is a cap on the amount of borrowing costs calculated in this way: it must not exceed actual borrowing costs incurred.

Sometimes one overall weighted average can be calculated for a group or entity, but in some situations it may be more appropriate to use a weighted average for borrowing costs for individual parts of the group or entity.

Question 2: Construction

Acruni Co had the following loans in place at the beginning and end of 20X6:

<table>
<thead>
<tr>
<th></th>
<th>1 January 20X6</th>
<th>31 December 20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% bank loan repayable 20X8</td>
<td>$120m</td>
<td>$120m</td>
</tr>
<tr>
<td>9.5% bank loan repayable 20X9</td>
<td>$80m</td>
<td>$80m</td>
</tr>
<tr>
<td>8.9% debenture repayable 20X7</td>
<td>–</td>
<td>$150m</td>
</tr>
</tbody>
</table>

The 8.9% debenture was issued to fund the construction of a qualifying asset (a piece of mining equipment), construction of which began on 1 July 20X6.

On 1 January 20X6, Acruni Co began construction of a qualifying asset, a piece of machinery for a hydro-electric plant, using existing borrowings. Expenditure drawn down for the construction was: $30m on 1 January 20X6, $20m on 1 October 20X6.

Required

Calculate the borrowing costs that can be capitalised for the hydro-electric plant machine.

(The answer is at the end of the chapter)

3.2.2 Commencement of capitalisation

Three events or transactions must be taking place for capitalisation of borrowing costs to be started:

(a) Expenditure on the asset is being incurred
(b) Borrowing costs are being incurred
(c) Activities are in progress that are necessary to prepare the asset for its intended use or sale

Expenditure must result in the payment of cash, transfer of other assets or assumption of interest-bearing liabilities. Deductions from expenditure will be made for any progress payments or grants received in connection with the asset. IAS 23 allows the average carrying amount of the asset during a period (including borrowing costs previously capitalised) to be used as a reasonable approximation of the expenditure to which the capitalisation rate is applied in the period.

Activities necessary to prepare the asset for its intended sale or use extend further than physical construction work. They encompass technical and administrative work prior to construction, e.g. obtaining
permits. They do not include holding an asset when no production or development that changes the asset’s condition is taking place, e.g. where land is held without any associated development activity.

3.2.3 Suspension of capitalisation

If active development is interrupted for any extended periods, capitalisation of borrowing costs should be suspended for those periods.

Suspension of capitalisation of borrowing costs is not necessary for temporary delays or for periods when substantial technical or administrative work is taking place.

3.2.4 Cessation of capitalisation

Once substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete, then capitalisation of borrowing costs should cease. This will normally be when physical construction of the asset is completed, although minor modifications may still be outstanding.

The asset may be completed in parts or stages, where each part can be used while construction is still taking place on the other parts. Capitalisation of borrowing costs should cease for each part as it is completed. The example given by the Standard is a business park consisting of several buildings.

3.2.5 Disclosure

The following should be disclosed in the financial statements in relation to borrowing costs:

(a) Amount of borrowing costs capitalised during the period
(b) Capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation

4 Depreciation of property, plant and equipment

Section overview

The cost or fair value (less any residual value) of an item of property, plant and equipment is depreciated over its useful life.

If an asset’s life extends over more than one accounting period, it earns profits over more than one period. It is a non-current asset.

With the exception of land held on freehold or very long leasehold, every item of property, plant equipment eventually wears out over time. Machines, cars and other vehicles, fixtures and fittings, and even buildings do not last for ever. When a business acquires an item of property, plant or equipment it will have some idea about how long its useful life will be, and it might decide what to do with it:

(a) Keep on using the asset until it becomes completely worn out, useless, and worthless.
(b) Sell off the asset at the end of its useful life, either by selling it as a second-hand item or as scrap.

Since property, plant and equipment has a cost, and a limited useful life, and its value eventually declines, it follows that a charge should be made in profit or loss to reflect the use that is made of the asset by the business. This charge is called depreciation.

4.1 Definitions

Depreciation accounting is governed by IAS 16 Property, plant and equipment. These are some of the IAS 16 definitions concerning depreciation.

Definitions

Depreciation is the result of systematic allocation of the depreciable amount of an asset over its useful life. Depreciation for the accounting period is charged to net profit or loss for the period either directly or indirectly.
Depreciable assets are assets which:
- Are expected to be used during more than one accounting period
- Have a limited useful life
- Are held by an entity for use in the production or supply of goods and services, for rental to others, or for administrative purposes

Useful life is:
- The period over which an asset is expected to be available for use by an entity; or
- The number of production or similar units expected to be obtained from the asset by an entity.

Depreciable amount of a depreciable asset is the historical cost or other amount substituted for cost in the financial statements, less the estimated residual value. (IAS 16)

An 'amount substituted for cost' will normally be a current market value after a revaluation has taken place.

4.1.1 Depreciation

IAS 16 requires the depreciable amount of a depreciable asset to be allocated on a systematic basis to each accounting period during the useful life of the asset. Every part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item must be depreciated separately.

Land and buildings are dealt with separately even when they are acquired together because land normally has an unlimited life and is therefore not depreciated. In contrast, buildings do have a limited life and must be depreciated.

One way of defining depreciation is to describe it as a means of spreading the cost of an item of property, plant or equipment over its useful life, and so matching the cost against the full period during which it earns profits for the business. Depreciation charges are an example of the application of the accrual assumption to calculate profits.

There are situations where, over a period, an asset has increased in value, i.e. its current value is greater than the carrying amount in the financial statements. You might think that in such situations it would not be necessary to depreciate the asset. The Standard states, however, that this is irrelevant, and that depreciation should still be charged to each accounting period, based on the depreciable amount, irrespective of a rise in value.

An entity is required to begin depreciating an item of property, plant and equipment when it is available for use and to continue depreciating it until it is derecognised even if it is idle during the period (unless the asset is held for sale as defined in IFRS 5).

4.1.2 Useful life

The following factors should be considered when estimating the useful life of a depreciable asset:
- Expected physical wear and tear
- Obsolescence
- Legal or other limits on the use of the assets.

Once decided, the useful life should be reviewed at least every financial year end and depreciation rates adjusted for the current and future periods if expectations vary significantly from the original estimates. The effect of the change should be disclosed in the accounting period in which the change takes place.

The assessment of useful life requires judgment based on previous experience with similar assets or classes of asset. When a completely new type of asset is acquired (i.e. through technological advancement or through use in producing a brand new product or service) it is still necessary to estimate useful life, even though the exercise will be much more difficult.
The Standard also points out that the physical life of the asset might be longer than its useful life to the entity in question. One of the main factors to be taken into consideration is the physical wear and tear the asset is likely to endure. This will depend on various circumstances, including the number of shifts for which the asset will be used, the entity’s repair and maintenance programme and so on. Other factors to be considered include obsolescence (due to technological advances/improvements in production/reduction in demand for the product/service produced by the asset) and legal restrictions, e.g. length of a related lease.

4.1.3 Residual value

In most cases the residual value of an asset is likely to be immaterial. If it is likely to be of any significant value, that value must be estimated at the date of purchase or any subsequent revaluation. The amount of residual value should be estimated based on the current situation with other similar assets, used in the same way, which are now at the end of their useful lives. Any expected costs of disposal should be offset against the gross residual value.

4.2 Depreciation methods

Various methods of allocating depreciation to accounting periods are available, but whichever is chosen must be applied consistently (as required by IAS 1), to ensure comparability from period to period. Change of policy is not allowed simply because of the profitability situation of the entity.

The following are the most common methods of allocating depreciation:

- **Straight line** in which an equal amount of the depreciable amount of an asset is written off in each year of its useful life
  
  \[
  \text{Depreciation charge} = \frac{\text{cost/fair value residual value}}{\text{useful life}}
  \]

- **Reducing balance** (sometimes called **diminishing value**) in which a diminishing amount of the depreciable amount of an asset is written off in each year of its useful life
  
  \[
  \text{Depreciation charge} = \text{carrying amount} \times \text{depreciation \%}
  \]

Other methods are allowed providing that they are systematic. Examples may include the sum of digits or units of production methods.

4.3 Accounting for depreciation

Depreciation is usually treated as an expense, unless it is absorbed by the entity in the process of producing other assets. For example, depreciation of plant and machinery can be incurred in the production of goods for sale (inventory items). In such circumstances, the depreciation is included in the cost of the new assets produced.

**Question 3: Depreciation methods**

A truck bought for a business cost $17 000. It is expected to last for five years and then be sold for scrap for $2 000. Usage over the five years is expected to be:

<table>
<thead>
<tr>
<th>Year</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>200</td>
</tr>
<tr>
<td>Year 2</td>
<td>100</td>
</tr>
<tr>
<td>Year 3</td>
<td>100</td>
</tr>
<tr>
<td>Year 4</td>
<td>150</td>
</tr>
<tr>
<td>Year 5</td>
<td>40</td>
</tr>
</tbody>
</table>

**Required**

Work out the depreciation to be charged each year under:

(a) The straight line method

(b) The reducing balance method (using a rate of 35%)

(The answer is at the end of the chapter)
4.4 **Review of useful life**
A review of the **useful life** of property, plant and equipment should be carried out **at least at each financial year end** and the depreciation charge for the current and future periods should be adjusted if expectations have changed significantly from previous estimates. Changes made are classified as changes in accounting estimates and are accounted for prospectively as adjustments to future depreciation.

4.4.1 **Example: Review of useful life**

B Co acquired a non-current asset on 1 January 20X2 for $80 000. It had no residual value and a useful life of 10 years.

On 1 January 20X5 the total useful life was reviewed and revised to seven years.

What will be the depreciation charge for 20X5?

**Solution**

\[
\begin{align*}
\text{Original cost} & \quad 80 000 \\
\text{Depreciation 20X2 – 20X4 (80 000 \times 3/10)} & \quad (24 000) \\
\text{Carrying amount at 1 December 20X5} & \quad 56 000 \\
\text{Remaining life (7 – 3)} & \quad 4 \text{ years} \\
\text{Depreciation charge years 20X5 – 20X8 (56 000/4)} & \quad 14 000
\end{align*}
\]

4.5 **Review of depreciation method**

The **depreciation method** should also be reviewed **at least at each financial year end** and, if there has been a significant change in the expected pattern of economic benefits from those assets, the method should be changed to suit this changed pattern. When such a change in depreciation method takes place the change should be accounted for as a **change in accounting estimate** and the depreciation charge for the current and future periods should be adjusted.

5 **Revaluation of property, plant and equipment**

**Section overview**
- Property, plant and equipment can be held under the cost model or the revaluation model.

5.1 **Measurement subsequent to initial recognition**

The Standard offers two possible treatments here, essentially a choice between keeping an asset recorded at **cost** or revaluing it to **fair value**:

(a) **Cost model.** Carry the asset at its cost less depreciation and any accumulated impairment loss.

(b) **Revaluation model.** Carry the asset at a revalued amount, being its **fair value** at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. IAS 16 makes clear that the revaluation model is available only if the fair value of the item can be measured reliably.
5.2 Revaluations

Definition

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (IAS 16)

The fair value of an asset is its market value. There will be a readily available market value for many types of asset, particularly land and buildings. Valuations are normally carried out by professionally qualified valuers.

There may be no market value for some types of asset because they are sold only rarely or because of their specialised nature (i.e. they would normally only be sold as part of an ongoing business). The entity should estimate fair value using the best information available. In practice, depreciated replacement cost is often used.

The frequency of valuation depends on the volatility of the fair values of individual items of property, plant and equipment. The more volatile the fair value, the more frequently revaluations should be carried out. Where the current fair value is materially different from the carrying amount then a revaluation should be carried out.

Most importantly, when an item of property, plant and equipment is revalued, the whole class of assets to which it belongs should be revalued.

All the items within a class should be revalued at the same time, to prevent selective revaluation of certain assets and to avoid disclosing a mixture of costs and values from different dates in the financial statements. A rolling basis of revaluation is allowed if the revaluations are kept up to date and the revaluation of the whole class is completed in a short period of time.

How should any increase in value be treated when a revaluation takes place? The debit will be the increase in value in the statement of financial position, but what about the credit? IAS 16 requires the increase to be recognised as other comprehensive income and credited to a revaluation surplus (i.e. part of owners’ equity), unless the increase is reversing a previous decrease which was recognised as an expense (impairment losses such as this are covered later in this Study Manual in more detail – see Example: Revaluation surplus (2) and (3)). To the extent that this offset is made, the increase is recognised as income; any excess is then taken to the revaluation surplus.

Example: Revaluation surplus (1)

Allister Co has some land in Sydney which was bought several years ago at a cost of $300 000. The company has decided to adopt the revaluation model for all land and buildings and as such has had the property revalued by a qualified surveyor. The market value of the land is $550 000.

Account for the revaluation in the current year.

Solution

The entry is:

DEBIT Land (statement of financial position) $250 000
CREDIT Revaluation surplus $250 000

Note: the credit to the revaluation surplus will be shown under ‘other comprehensive income’.

Example: Revaluation surplus (2)

Binkie Co currently has an item of land carried in its books at $13 000. Two years ago a slump in land values led the company to reduce the carrying amount from $15 000. This was taken as an expense in the statement of profit or loss and other comprehensive income, thereby reducing profit for the year. There has been a surge in land prices in the current year, however, and the land is now worth $20 000.
Account for the revaluation in the current year.

**Solution**

The double entry is:

- **DEBIT** Land (statement of financial position) $7 000
- **CREDIT**
  - Profit or loss $2 000
  - Revaluation surplus $5 000

**Note:** both credit entries are reported in the statement of profit or loss and other comprehensive income: $2 000 is recognised as part of profit or loss and the $5 000 credited to the revaluation surplus is recognised as other comprehensive income below profit or loss.

The case is similar for a **decrease in value** on revaluation. Any decrease should be recognised as an expense, except where it offsets a previous increase taken as a revaluation surplus in owners’ equity. Any decrease greater than the previous upwards increase in value must be recognised as an expense in profit or loss.

---

**Example: Revaluation decrease (3)**

Let us simply change the example given above. The original cost was $15 000, revalued upwards to $20 000 two years ago. The value has now fallen to $13 000.

Account for the decrease in value.

**Solution**

The double entry is:

- **DEBIT** Revaluation surplus $5 000
- **DEBIT** Profit or loss $2 000
- **CREDIT** Land (statement of financial position) $7 000

---

### 5.3 Depreciation of revalued assets

There is a further complication when a **revalued asset is being depreciated**. After an upward revaluation, the revalued amount is depreciated over the remaining useful life. Therefore, the depreciation charge to profit or loss will increase.

Normally, a revaluation surplus is only realised when the asset is sold, but when it is being depreciated, part of that surplus is being realised as the asset is used. The amount of the surplus realised is the difference between depreciation charged on the revalued amount and the (lower) depreciation which would have been charged on the asset’s original cost. **This amount can be transferred to retained (i.e. realised) earnings but not through profit or loss** and disclosed in the statement of changes in equity.

**Example: Revaluation and depreciation (4)**

Crinkle Co bought an asset for $10 000 at the beginning of 20X6. It had a useful life of five years. On 1 January 20X8 the asset was revalued to $12 000. The expected useful life has remained unchanged (i.e. three years remain).

Account for the revaluation and state the treatment for depreciation from 20X8 onwards.
Solution

On 1 January 20X8 the carrying amount of the asset is $10 000 – (2 × $10 000 ÷ 5) = $6 000. For the revaluation:

<table>
<thead>
<tr>
<th>DEBIT</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset value</td>
<td>Revaluation surplus</td>
</tr>
<tr>
<td>$6 000</td>
<td>$6 000</td>
</tr>
</tbody>
</table>

The depreciation for the next three years will be $12 000 ÷ 3 = $4 000, compared to depreciation on cost of $10 000 ÷ 5 = $2 000. So each year, the extra $2 000 can be treated as part of the surplus which has become realised:

<table>
<thead>
<tr>
<th>DEBIT</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revaluation surplus</td>
<td>Retained earnings</td>
</tr>
<tr>
<td>$2 000</td>
<td>$2 000</td>
</tr>
</tbody>
</table>

6 Disposal of property, plant and equipment

Section overview

- A gain or loss is recognised in profit or loss on the derecognition of an item of property, plant and equipment.

When an asset is permanently withdrawn from use, or sold or scrapped, and no future economic benefits are expected from its disposal, it should be withdrawn from the statement of financial position.

6.1 Disposal of an asset held under the cost model

A gain or loss on disposal is recognised as income or expense in the profit or loss section of the statement of profit or loss and other comprehensive income. This is calculated as the difference between the net proceeds received and the carrying amount of the asset at the date of derecognition.

Example: Disposal (5)

Wells Co bought an item of machinery on 31 October 20X2 for $40 000. The useful life of the asset was five years and depreciation commenced on this date on the straight line basis. Due to a change in the focus of Wells’ business, the asset was disposed of on 31 August 20X5. The proceeds of the sale were $15 000.

What profit or loss is recognised in Wells’ statement of profit or loss and other comprehensive income for the year ended 31 December 20X6?

Solution

<table>
<thead>
<tr>
<th>Proceeds</th>
<th>Cost</th>
<th>Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$15 000</td>
<td>40 000</td>
<td>(22 667)</td>
</tr>
</tbody>
</table>

Loss on disposal

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(17 333)</td>
</tr>
</tbody>
</table>

(2 333)
6.2 Disposal of an asset held under the revaluation model

A gain or loss on disposal is calculated in the same way as that described above. This is recognised in the profit or loss section of the statement of profit or loss and other comprehensive income.

As any previously recognised revaluation gains are now realised, the remaining revaluation surplus relating to the asset disposed of is now transferred to retained earnings. This is achieved by way of a reserves transfer, disclosed in the statement of changes in equity:

DEBIT Revaluation surplus
CREDIT Retained earnings

This adjustment does not affect the statement of profit or loss and other comprehensive income.

Question 4: Depreciation accounting

A business purchased two rivet-making machines on 1 January 20X5 at a cost of $15,000 each. Each had an estimated life of five years and a nil residual value. The straight line method of depreciation is used.

Owing to an unforeseen slump in market demand for rivets, the business decided to reduce its output of rivets, and switch to making other products instead. On 31 March 20X7, one rivet-making machine was sold (on credit) to a buyer for $8,000.

Later in the year, however, it was decided to abandon production of rivets altogether, and the second machine was sold on 1 December 20X7 for $2,500 cash.

Prepare the machinery account, accumulated depreciation of machinery account and disposal of machinery account for the accounting year to 31 December 20X7.

(The answer is at the end of the chapter)

7 Disclosure of property, plant and equipment

Section overview

- An entity must disclose a reconciliation of the carrying amount of property, plant and equipment at the beginning and end of the period.

The Standard has a long list of disclosure requirements, for each class of property, plant and equipment:

(a) Measurement bases for determining the gross carrying amount (if more than one, the gross carrying amount for that basis in each category)
(b) Depreciation methods used
(c) Useful lives or depreciation rates used
(d) Gross carrying amount and accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period
(e) Reconciliation of the carrying amount at the beginning and end of the period showing:
   (i) Additions
   (ii) Disposals
   (iii) Acquisitions through business combinations (see Chapter 11)
   (iv) Increases/decreases during the period from revaluations and from impairment losses
   (v) Impairment losses recognised in profit or loss
   (vi) Impairment losses reversed in profit or loss
   (vii) Depreciation
   (viii) Net exchange differences (from translation of statements of foreign entities)
   (ix) Any other movements
The financial statements should also disclose the following:

(a) Existence and amounts of **restrictions on title**, and items pledged as security for liabilities
(b) Amount of expenditures on account of **items in the course of construction**
(c) Amount of commitments to **acquisitions** of property, plant and equipment

**Revalued assets** require further disclosures:

(a) Effective date of the revaluation
(b) Whether an independent valuer was involved
(c) Carrying amount of each class of property, plant and equipment that would have been included in the financial statements had the assets been carried at cost less accumulated depreciation and accumulated impairment losses
(d) Revaluation surplus, indicating the movement for the period and any restrictions on the distribution of the balance to shareholders

The Standard also **encourages disclosure** of additional information, which the users of financial statements may find useful:

(a) The carrying amount of temporarily idle property, plant and equipment
(b) The gross carrying amount of any fully depreciated property, plant and equipment that is still in use
(c) The carrying amount of property, plant and equipment retired from active use and held for disposal
(d) The fair value of property, plant and equipment when this is materially different from the carrying amount

The following format (with notional figures) is commonly used to disclose non-current assets movements:

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Land and Buildings</th>
<th>Plant and Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost or valuation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 20X4</td>
<td>50 000</td>
<td>40 000</td>
<td>10 000</td>
</tr>
<tr>
<td>Revaluation surplus</td>
<td>12 000</td>
<td>12 000</td>
<td>–</td>
</tr>
<tr>
<td>Additions in year</td>
<td>4 000</td>
<td>–</td>
<td>4 000</td>
</tr>
<tr>
<td>Disposals in year</td>
<td>(1 000)</td>
<td>–</td>
<td>(1 000)</td>
</tr>
<tr>
<td>At 31 December 20X4</td>
<td>65 000</td>
<td>52 000</td>
<td>13 000</td>
</tr>
<tr>
<td><strong>Accumulated depreciation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 1 January 20X4</td>
<td>16 000</td>
<td>10 000</td>
<td>6 000</td>
</tr>
<tr>
<td>Charge for year</td>
<td>4 000</td>
<td>1 000</td>
<td>3 000</td>
</tr>
<tr>
<td>Eliminated on disposals</td>
<td>(500)</td>
<td>–</td>
<td>(500)</td>
</tr>
<tr>
<td>At 31 December 20X4</td>
<td>19 500</td>
<td>11 000</td>
<td>8 500</td>
</tr>
<tr>
<td><strong>Net carrying amount</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 31 December 20X4</td>
<td>45 500</td>
<td>41 000</td>
<td>4 500</td>
</tr>
<tr>
<td>At 1 January 20X4</td>
<td>34 000</td>
<td>30 000</td>
<td>4 000</td>
</tr>
</tbody>
</table>

**Question 5: Non-current assets**

(a) In a statement of financial position prepared in accordance with IAS 16, what does the carrying amount represent?

(b) In a set of financial statements prepared in accordance with IAS 16, is it correct to say that the carrying amount figure in a statement of financial position cannot be greater than the market (net realisable) value of the partially used asset as at the end of the reporting period? Explain your reasons for your answer.

(The answer is at the end of the chapter)
Key chapter points

- Inventory is valued at the lower of cost and net realisable value.
- The cost of inventory includes purchase and conversion costs and all costs in bringing it to its current location and condition.
- The cost of inventories should be assigned by using the first-in, first-out (FIFO) or weighted average cost formulae. The LIFO formula (last in, first out) is not permitted by IAS 2.
- Net realisable value is the selling price of an item of inventory less the costs which must be incurred in order to make the sale.
- Property, plant and equipment is initially recognised at cost; subsequent costs are capitalised if they meet the definition of an asset.
- IAS 23 requires that borrowing costs relating to qualifying assets are capitalised as part of the cost of a non-current asset. Qualifying assets are those that take an extended period of time to prepare for normal use.
- Capitalisation of interest commences when expenditure on the asset is being incurred, borrowing costs are being incurred and activities to prepare the asset for normal use are underway.
- Capitalisation of interest is suspended if development of the asset is suspended for prolonged periods, and ceases when the asset is ready for normal use.
- The cost or fair value (less any residual value) of an item of property, plant and machinery is depreciated over its useful life, using the straight line or reducing balance method.
- Property, plant and equipment can be held under the cost model or the revaluation model.
- Where an item of PPE is revalued, the valuation must be kept up to date so that it is not materially different from fair value at any period end.
- When an item of PPE is revalued, the whole class of assets to which it belongs should be revalued.
- A revaluation surplus is recognised in other comprehensive income, and accumulated in equity.
- A gain or loss is recognised in the profit or loss section of the statement of profit or loss and other comprehensive income on the derecognition of an item of property, plant and equipment.
- An entity must disclose a reconciliation of the carrying amount of property, plant and equipment at the beginning and end of the period.
Quick revision questions

1. Which of the following elements can be included in the cost of a non-current asset?
   I. Purchase price of raw materials
   II. Architect’s fees
   III. Import duties
   IV. Installation costs
   A. I and III only
   B. I and IV only
   C. I, II and III only
   D. I, II, III and IV

2. Sculpert Co is a business which buys and sells original sculptures. One of the items in inventory at 31 March 20X3 had been bought four years ago at a cost of $15,000. It had originally been anticipated that this item would be sold for $22,000. To date the best offer which has been received is $17,500 from an overseas collector. This offer has been made on the basis that the item will be transported to the collector. It is estimated that the costs of shipping and insurance are $3,000.

   At what value should this item be included in the inventory of Sculpert at 31 March 20X3?
   A. $14,500
   B. $15,000
   C. $17,500
   D. $22,000

3. Woodpecker Co has produced an inventory list which, taking account of physical quantities, gives the following values.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Net realisable</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 mm nuts</td>
<td>100</td>
<td>180</td>
</tr>
<tr>
<td>7 mm screws</td>
<td>70</td>
<td>90</td>
</tr>
<tr>
<td>10 mm nails</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>8 mm washers</td>
<td>120</td>
<td>160</td>
</tr>
<tr>
<td>15 mm bolts</td>
<td>190</td>
<td>170</td>
</tr>
</tbody>
</table>

   What is the correct total value for inclusion in the statement of financial position?
   A. $510
   B. $540
   C. $560
   D. $650

4. On 1 November 20X2 Cyanne Co acquired a non-current asset which cost $88,000. The company’s policy is to depreciate non-current assets at a rate of 25%, on the reducing balance basis.

   When preparing the financial statements for the year to 31 October 20X4, the accountant calculated the depreciation charge on the straight line basis using a nil residual value.

   How will the reported profit for the year to 31 October 20X4 be affected when the depreciation charge is corrected?
   A. Increased by $5,500
   B. Increased by $16,500
   C. Reduced by $5,500
   D. Reduced by $16,500
The following information relates to the non-current assets of Carsp Co in the past financial year:

<table>
<thead>
<tr>
<th>Buildings</th>
<th>Machinery</th>
<th>Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Carrying amount b/f</td>
<td>1 686</td>
<td>918</td>
</tr>
<tr>
<td>Additions</td>
<td>200</td>
<td>463</td>
</tr>
<tr>
<td>Disposals</td>
<td>(NIL)</td>
<td>(178)</td>
</tr>
<tr>
<td>Depreciation charge</td>
<td>(36)</td>
<td>(296)</td>
</tr>
<tr>
<td>Carrying amount c/f</td>
<td>1 850</td>
<td>907</td>
</tr>
<tr>
<td>Profit/(Loss) on disposals</td>
<td>(13)</td>
<td>(7)</td>
</tr>
</tbody>
</table>

What is the total net expense recognised in profit or loss for the year in respect of non-current assets?

A $376 000  
B $390 000  
C $402 000  
D $416 000

At 30 April 20X5, Fixtures Co had recognised a revaluation gain of $30 000 in respect of one of the properties owned and used by the company. In the year to 30 April 20X6, the value of another property owned by the company fell by $45 000, due to the announcement of a plan to build a new road. The second property had not previously been revalued.

How are profit or loss for the year to 30 April 20X6 and the revaluation surplus as at that date affected?

<table>
<thead>
<tr>
<th>Profit or loss</th>
<th>Revaluation surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Charge of $15 000</td>
<td>Reduced to nil</td>
</tr>
<tr>
<td>B Charge of $45 000</td>
<td>Not affected</td>
</tr>
<tr>
<td>C Not affected</td>
<td>Not affected</td>
</tr>
<tr>
<td>D Not affected</td>
<td>Reduced by $45 000</td>
</tr>
</tbody>
</table>

Resol Co owns three properties. On 30 November 20X3 the following values relate to the properties:

| Head office | Warehouse | Factory |
| $           | $         | $       |
| 700 000     | 400 000   | 1 200 000 |
| 740 000     | 405 000   | 1 100 000 |

The revaluation surplus at 1 December 20X2 had a balance of $294 000. This represented surpluses on the properties as follows:

| Head office | Warehouse | Factory |
| $186 000    | $68 000   | $40 000 |

What is the balance on the revaluation surplus at 30 November 20X3?

A $235 000  
B $294 000  
C $299 000  
D $335 000

A company purchased a machine for $50 000 on 1 January 20X1. It was judged to have a five-year life with a residual value of $5 000. On 31 December 20X2 $15 000 was spent on an upgrade to the machine. This extended its remaining useful life to five years, with the same residual value. During 20X3, the market for the product declined and the machine was sold on 1 January 20X4 for $7 000.

What was the loss on disposal?

A $31 000  
B $31 600  
C $35 000  
D $35 600
The components of the cost of a major item of equipment are given below.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase price</td>
<td>$780,000</td>
</tr>
<tr>
<td>Import duties</td>
<td>$117,000</td>
</tr>
<tr>
<td>Sales tax (refundable)</td>
<td>$78,000</td>
</tr>
<tr>
<td>Site preparation</td>
<td>$30,000</td>
</tr>
<tr>
<td>Installation</td>
<td>$28,000</td>
</tr>
<tr>
<td>Initial operating losses before the asset reaches planned</td>
<td>$50,000</td>
</tr>
<tr>
<td>performance</td>
<td></td>
</tr>
<tr>
<td>Estimated cost of dismantling and removal of asset</td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,183,000</strong></td>
</tr>
</tbody>
</table>

What amount may be recognised as the cost of the asset, according to IAS 16 *Property, plant and equipment*?

- A  $956,000
- B  $1,055,000
- C  $1,105,000
- D  $1,183,000
Answers to quick revision questions

1. D  The cost of a non-current asset includes the directly attributable costs of bringing the asset to working condition for its intended use. Abnormal costs may not be capitalised.

2. A  Net realisable value: $17 500 – 3 000
   = $14 500

3. A  Each line of inventory must be included at the lower of cost or NRV; thus inventory value = $(100 + 70 + 50 + 120 + 170) = $510

4. A  The carrying amount at the beginning of the year was $88 000 – (25% × $88 000) = $66 000. The correct charge for the year on the reducing balance basis is $66 000 × 0.25 = $16 500. The accountant has charged $88 000 × 0.25 = $22 000, which is $5 500 too much. Profit will therefore increase.

5. B  $'000
   Depreciation charges (36 + 296 + 64)  396
   Loss on disposal  7
   Less: profit on disposal  (13)
   390

6. B  An impairment loss, or downwards revaluation, may only be charged to the revaluation surplus relating to the same asset.

7. C  The factory's market value is now $100 000 less than its carrying amount, and to reflect this in the accounts the double entry will be: Credit non-current assets $100 000, Debit Revaluation surplus $40 000, Debit Profit or loss $60 000. The treatment of the other properties is straightforward.

Revaluation surplus  $'000
Opening balance  294
Head office (740 – 700)  40
Warehouse (405 – 400)  5
Factory (0 – 40)  (40)
Closing balance  299

8. B  $
   Original purchase price  50 000
   Depreciation 20X1: (50 000 – 5 000)/5  (9 000)
   Depreciation 20X2  (9 000)
   Upgrade  15 000
   47 000
   Depreciation 20X3: (47 000 – 5 000)/5  (8 400)
   Carrying amount 1 January 20X4  38 600
   Disposal proceeds  (7 000)
   Loss on disposal  31 600

9. B  $780 + 117 + 30 + 28 + 100 = 1 055
Answers to chapter questions

1

Borrowing costs
To 31 December 20X6 $500 000/$1 000 000 × 9% $45 000 $90 000
Less investment income
To 30 June 20X6 $250 000/$500 000 × 7% × 6/12 (8 750) (17 500)
Cost of assets
Expenditure incurred 500 000 1 000 000
Borrowing costs 36 250 72 500
$336 250 $1 072 500

2

Capitalisation rate = weighted average rate = \( \frac{10\% \times 120}{120 + 80} + \frac{9.5\% \times 80}{120 + 80} \) = 9.8%

Borrowing costs = ($30m × 9.8%) + ($20m × 9.8% × 3/12) = $3.43m

3 (a) Under the straight line method, depreciation for each of the five years is:

\[
\text{Annual depreciation} = \frac{17 000 - 2 000}{5} = 3 000
\]

(b) Under the reducing balance method, depreciation for each of the five years is:

<table>
<thead>
<tr>
<th>Year</th>
<th>Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>35% × $17 000 = $5 950</td>
</tr>
<tr>
<td>2</td>
<td>35% × ($17 000 − $5 950) = 35% × $11 050 = $3 868</td>
</tr>
<tr>
<td>3</td>
<td>35% × ($11 050 − $3 868) = 35% × $7 182 = $2 514</td>
</tr>
<tr>
<td>4</td>
<td>35% × ($7 182 − $2 514) = 35% × $4 668 = $1 634</td>
</tr>
<tr>
<td>5</td>
<td>Balance to bring book value down to $2 000 = $4 668 − $1 634 − $2 000 = $1 034</td>
</tr>
</tbody>
</table>

4

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Jan Balance b/f</td>
<td>30 000</td>
<td>31 Mar Disposal of machinery account</td>
</tr>
<tr>
<td>1 Dec Disposal of machinery account</td>
<td>15 000</td>
<td></td>
</tr>
<tr>
<td>30 000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACCUMULATED DEPRECIATION OF MACHINERY

<table>
<thead>
<tr>
<th></th>
<th>20X7</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Mar Disposal of machinery account*</td>
<td>6 750</td>
<td>1 Jan Balance b/f</td>
</tr>
<tr>
<td>1 Dec Disposal of machinery account**</td>
<td>8 750</td>
<td>31 Dec Profit or loss***</td>
</tr>
<tr>
<td>15 500</td>
<td>15 500</td>
<td></td>
</tr>
</tbody>
</table>

* Depreciation at date of disposal = $6 000 + $750
** Depreciation at date of disposal = $6 000 + $2 750
*** Depreciation charge for the year = $750 + $2 750
### DISPOSAL OF MACHINERY

<table>
<thead>
<tr>
<th>Date</th>
<th>Account Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 Mar</td>
<td>Machinery account</td>
<td>$15,000</td>
</tr>
<tr>
<td>31 Mar</td>
<td>Account receivable (sale price)</td>
<td>$8,000</td>
</tr>
<tr>
<td>31 Mar</td>
<td>Provision for depreciation</td>
<td>$6,750</td>
</tr>
<tr>
<td>1 Dec</td>
<td>Machinery</td>
<td>$15,000</td>
</tr>
<tr>
<td>1 Dec</td>
<td>Cash (sale price)</td>
<td>$2,500</td>
</tr>
<tr>
<td>1 Dec</td>
<td>Provision for depreciation</td>
<td>$8,750</td>
</tr>
<tr>
<td>31 Dec</td>
<td>Profit or loss (loss on disposal)</td>
<td>$4,000</td>
</tr>
</tbody>
</table>

You should be able to calculate that there was a loss on the first disposal of $250, and a loss on the second disposal of $3,750, giving a total loss of $4,000.

### Workings

1. At 1 January 20X7, accumulated depreciation on the machines will be:
   
   \[2 \text{ machines} \times 2 \text{ years} \times \frac{15,000}{5} \text{ per machine p.a.} = 12,000 \text{, or } 6,000 \text{ per machine}\]

2. Monthly depreciation is \[\frac{3,000}{12} = 250\text{ per machine per month}\]

3. The machines are disposed of in 20X7.
   
   (a) On 31 March – after 3 months of the year. Depreciation for the year on the machine = 3 months \times 250 = 750
   
   (b) On 1 December – after 11 months of the year. Depreciation for the year on the machine = 11 months \times 250 = 2,750

5. (a) In simple terms the carrying amount of an asset is the cost (or fair value) of an asset less the 'accumulated depreciation', that is, all depreciation charged so far. It should be emphasised that the main purpose of charging depreciation is to ensure that profits are fairly reported. In this way, depreciation is concerned with the statement of profit or loss and other comprehensive income rather than the statement of financial position. In consequence, the carrying amount figure in the statement of financial position can be quite arbitrary. In particular, it does not necessarily bear any relation to the market value of an asset and is of little use for planning and decision-making.

   An obvious example of the disparity between carrying amount and market value is found in the case of buildings, which may be worth more than ten times as much as their carrying amount.

   (b) Carrying amount can in some circumstances be higher than market value (net realisable value). IAS 16 Property, plant and equipment states that the value of an asset cannot be greater than its 'recoverable amount'. However 'recoverable amount' as defined in IAS 16 is the amount recoverable from further use. This may be higher than the market value.

   This makes sense if you think of a specialised machine which could not fetch much on the second-hand market but which will produce goods which can be sold at a profit for many years.
Chapter 6

Intangible assets

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement of profit or loss and other comprehensive income</strong></td>
<td>LO2</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit</td>
<td>LO2.2</td>
</tr>
<tr>
<td>or loss and other comprehensive income; statement of changes in equity; and</td>
<td></td>
</tr>
<tr>
<td>statement of financial position</td>
<td></td>
</tr>
<tr>
<td><strong>Statement of financial position</strong></td>
<td>LO3</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit</td>
<td>LO3.1</td>
</tr>
<tr>
<td>or loss and other comprehensive income; statement of changes in equity;</td>
<td></td>
</tr>
<tr>
<td>statement of financial position</td>
<td></td>
</tr>
</tbody>
</table>

**Topic list**

1. IAS 38 *Intangible assets*
2. Research and development costs
Intangible non-current assets are long-term assets which have a value to the business because they have been paid for, but which do not have any physical substance. They include deferred development costs.

In many companies, especially those which produce food or ‘scientific’ products such as medicines or ‘high technology’ products, the expenditure on research and development is considerable. When R & D is a large item of cost its accounting treatment may have a significant influence on the profits of a business and its statement of financial position. Because of this attempts have been made to standardise the treatment, and these are discussed in this chapter.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What is an intangible asset? (Section 1.2)
2. How is an intangible asset initially measured? (Section 1.3)
3. Under what circumstances can an intangible asset be revalued? (Section 1.4)
4. Internally generated goodwill, brands, mastheads, publishing titles and customer lists be capitalised as intangible assets. (Section 1.7)
5. What is research in the context of IAS 38? (Section 2.2)
6. What is development in the context of IAS 38? (Section 2.2)
7. How are research costs treated? (Section 2.4.1)
8. What are the IAS 38 recognition criteria for development costs? (Section 2.4.2)
1 IAS 38 Intangible assets

Section overview
- Intangible assets are defined by IAS 38 as non-monetary assets without physical substance.

'Intangible assets' are assets that have no physical substance or existence, as opposed to tangible assets (such as plant and machinery) which have a physical existence. Intangible assets include goodwill, intellectual rights (e.g. patents, performing rights and authorship rights), as well as research and development costs.

1.1 The objectives of the Standard
(a) To establish the criteria for when an intangible asset may or should be recognised.
(b) To specify how intangible assets should be measured.
(c) To specify the disclosure requirements for intangible assets.

1.2 Definition of an intangible asset
Examples of items that might be considered as intangible assets include computer software, patents, copyrights, motion picture films, customer lists, franchises and fishing rights. An item should not be recognised as an intangible asset, however, unless it fully meets the definition in the Standard.

The definition of an intangible asset is therefore a key aspect of the Standard:

**Definition**

An intangible asset is an identifiable non-monetary asset without physical substance.

We shall consider the elements of this definition in turn in Sections 1.2.1 – 1.2.3.

1.2.1 Intangible asset: must be identifiable
An intangible asset must be identifiable in order to distinguish it from goodwill. With non-physical items, there may be a problem with 'identifiability':

(a) If an intangible asset is acquired separately through purchase, there may be a transfer of a legal right that would help to make an asset identifiable.

(b) An intangible asset may be identifiable if it is separable, i.e. if it could be rented or sold separately. However, 'separability' is not an essential feature of an intangible asset.

1.2.2 Intangible asset: control by the entity
Another element of the definition of an intangible asset is that it must be under the control of the entity as a result of a past event. The entity must therefore be able to enjoy the future economic benefits from the asset, and prevent the access of others to those benefits. A legally enforceable right is evidence of such control, but is not always a necessary condition:

(a) Control over technical knowledge or know-how only exists if it is protected by a legal right.

(b) The skill of employees, arising out of the benefits of training costs, are most unlikely to be recognisable as an intangible asset, because an entity does not control the future actions of its staff.

(c) Similarly, market share and customer loyalty cannot normally be intangible assets, since an entity cannot control the actions of its customers.
1.2.3 Intangible asset: expected future economic benefits

An item can only be recognised as an intangible asset if economic benefits are expected to flow in the future from ownership of the asset. Economic benefits may come from the sale of products or services, or from a reduction in expenditure (cost savings).

1.3 Initial measurement of an intangible asset

An intangible asset, when recognised initially, must be measured at cost. It should be recognised if, and only if both the following occur:

(a) It is probable that the future economic benefits that are attributable to the asset will flow to the entity.

(b) The cost can be measured reliably.

If an intangible asset is acquired separately, its cost can usually be measured reliably as its purchase price (including incidental costs of purchase such as legal fees, and any costs incurred in getting the asset ready for use).

When an intangible asset is acquired as part of a business combination (i.e. an acquisition or takeover), the cost of the intangible asset is its fair value at the date of the acquisition.

1.4 Subsequent measurement of an intangible asset

The revaluation model may be applied to intangible assets only where a fair value can be established by reference to an active market. An active market is one in which items traded are homogenous, willing buyers and sellers are available and prices are available to the public.

In practice, examples of assets that are part of an active market are produce quotas and taxi licences. By definition, however, most intangible assets are unique and therefore do not qualify as belonging to an active market and so cannot be revalued.

Where revaluations are allowed, they should be made sufficiently regularly so that the carrying amount of the asset is not materially different from its fair value.

1.5 Amortisation of intangible assets

Intangible assets with a finite useful life are amortised over that useful life, beginning when the asset is available for use. Amortisation should be on a straight line basis unless some other basis better reflects the pattern in which the asset's benefits arise. The residual value of an intangible asset is taken to be nil unless there is a commitment by a third party to purchase the asset at the end of its life or there is an active market for the asset that is likely to exist at the end of its useful life.

Intangible assets with an indefinite useful life are not amortised but tested each year for impairment, and also whenever there are indications of impairment.

1.6 Internally generated goodwill

Goodwill is the value to a business of its reputation, brand names, position in the market and so on. When one company buys another, purchased goodwill arises. This is discussed in more detail in Chapter 11. Internally generated goodwill is developed by a company over time as it builds up its reputation.

Principle to learn

Internally generated goodwill may not be recognised as an asset.

The standard deliberately precludes recognition of internally generated goodwill because it requires that, for initial recognition, the cost of the asset rather than its fair value should be capable of being measured reliably and that it should be identifiable and controlled. Internally generated goodwill does not meet this requirement as its value is subjective and cannot be measured reliably.
1.7 Other internally generated intangible assets

The Standard prohibits the recognition of internally generated brands, mastheads, publishing titles and customer lists and similar items as intangible assets. These all fail to meet one or more of (in some cases all) the definition and recognition criteria and in some cases are probably indistinguishable from internally generated goodwill.

2 Research and development costs

Section overview

- Expenditure on research must always be written off in the period in which it is incurred.
- Development costs are also usually written off. However, if the criteria laid down by IAS 38 are satisfied, development expenditure must be capitalised as an intangible asset. If it has a finite useful life, it should then be amortised over that life.

2.1 Introduction to R & D

Large companies may spend significant amounts of money on research and development (R & D) activities. Obviously, any amounts so expended must be credited to cash and debited to an account for research and development expenditure. The accounting problem is how to treat the debit balance on R & D account at the reporting date.

The two possible treatments are:

(a) The debit balance may be classified as an expense and transferred to profit or loss. This is referred to as ‘writing off’ the expenditure. The argument here is that it is an expense just like rent or wages and its accounting treatment should be the same.

(b) The debit balance may be classified as an asset and included in the statement of financial position. This is referred to as ‘capitalising’ or ‘carrying forward’ or ‘deferring’ the expenditure. This argument is based on the accrual assumption. If R & D activity eventually leads to new or improved products which generate revenue, the costs should be carried forward to be matched against that revenue in future accounting periods.

So the main question surrounding R & D costs is whether they should be treated as an expense or capitalised as an asset. This question is dealt with in IAS 38 Intangible assets.

2.2 Definitions

The following definitions are given by the Standard.

Definitions

Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.

Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use.

IAS 38 (revised)

Although these definitions are usually well-understood, in practice it may not be so easy to identify the activities encompassed by R & D and the dividing line between the categories may be indistinct. Identification often depends on the type of business involved, the projects it undertakes and how it is organised.
The Standard gives examples of activities which might be included in either research or development, or which are neither but may be closely associated with both.

- **Research**
  - Activities aimed at obtaining new knowledge
  - The search for applications of research findings or other knowledge
  - The search for product or process alternatives
  - The formulation and design of possible new or improved product or process alternatives

- **Development**
  - The design, construction and testing of pre-production prototypes and models
  - The design of tools, jigs, moulds and dies involving new technology
  - The design, construction and operation of a pilot plant that is not of a scale economically feasible for commercial production
  - The design, construction and testing of a chosen alternative for new/improved materials

### 2.3 Components of research and development costs

Research and development costs will include all costs that are **directly attributable** to research and development activities, or that can be **allocated on a reasonable basis**.

The Standard lists the costs which may be included in R & D, where applicable (note that **selling costs are excluded**):

- **Salaries, wages** and other employment related costs of personnel engaged in R & D activities
- Costs of **materials and services** consumed in R & D activities
- **Depreciation** of property, plant and equipment to the extent that these assets are used for R & D activities
- **Overhead costs**, other than general administrative costs, related to R & D activities; these cost are allocated on bases similar to those used in allocating overhead costs to inventories (see IAS 2 Inventories)
- **Other costs**, such as the amortisation of patents and licences, to the extent that these assets are used for R & D activities.

### 2.4 Recognition of R & D costs

The relationship between the R & D costs and the **economic benefit** expected to be derived from them will determine the allocation of those costs to different periods. Recognition of the costs as an asset will only occur where it is probable that the cost will produce future economic benefits for the entity and where the costs can be measured reliably.

(a) In the case of **research costs**, this will not be the case due to uncertainty about the resulting benefit from them; and so they should be expensed in the period in which they arose.

(b) **Development activities** tend to be much further advanced than the research stage and so it may be possible to determine the likelihood of future economic benefit. Where this can be determined, the development costs should be carried forward as an asset.

### 2.4.1 Research costs

Research costs should be recognised as an **expense in the period in which they are incurred**. They should not be recognised as an asset in a later period.
2.4.2 Development costs

Alternative treatments are given for development costs, the use of which depends on the situation. Most of the time, development costs will be recognised as an expense in the period in which they are incurred unless the criteria for asset recognition identified below are met. Development costs initially recognised as an expense should not be recognised as an asset in a later period.

Development expenditure should be recognised as an asset only when the business can demonstrate all of the following (where these criteria are met, development expenditure must be capitalised):

- The technical feasibility of completing the intangible asset so that it will be available for use or sale
- Its intention to complete the intangible asset and use or sell it
- Its ability to use or sell the intangible asset
- How the intangible asset will generate probable future economic benefits. Among other things, the entity should demonstrate the existence of a market for the output of the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset
- The availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset
- Its ability to measure reliably the expenditure attributable to the intangible asset during its development

There is also an important point about the carrying amount of the asset and recoverability. The development costs of a project recognised as an asset should not exceed the amount that it is probable will be recovered from related future economic benefits, after deducting further development costs, related production costs, and selling and administrative costs directly incurred in marketing the product.

2.5 Amortisation of development costs

Once capitalised as an asset, development costs must be amortised and recognised as an expense to match the costs with the related revenue or cost savings. This must be done on a systematic basis, so as to reflect the pattern in which the related economic benefits are recognised. If no other pattern can be identified then the straight line method should be used.

The amortisation will begin when the asset is available for use. Until the asset is available for use it should be subject to an annual impairment review.

If the intangible asset is considered to have an indefinite useful life, it should not be amortised but should be subjected to an annual impairment review.

2.6 Impairment of development costs

As with all assets, impairment (fall in value of an asset) is a possibility, but perhaps even more so in cases such as this. The development costs should be written down to the extent that the unamortised balance (taken together with further development costs, related production costs, and selling and administrative costs directly incurred in marketing the product) is no longer probable of being recovered from the expected future economic benefit.

2.7 Disclosure

The Standard has fairly extensive disclosure requirements for intangible assets. The financial statements should disclose the accounting policies for intangible assets that have been adopted.

For each class of intangible assets (including development costs), disclosure is required of the following:

- The method of amortisation used
- The useful life of the assets or the amortisation rate used
- The gross carrying amount, the accumulated amortisation and the accumulated impairment losses as at the beginning and the end of the period
• A reconciliation of the carrying amount as at the beginning and at the end of the period (additions, retirements/disposals, revaluations, impairment losses, impairment losses reversed, amortisation charge for the period, net exchange differences, other movements)

• The carrying amount of internally-generated intangible assets

An entity should also disclose the amount of research and development expenditure charged as an expense.

Question 1: Y Co (1)

Y Co is a research company which specialises in developing new materials and manufacturing processes for the furniture industry. The company receives payments from a variety of manufacturers, which pay for the right to use the company’s patented fabrics and processes.

Research and development costs for the year ended 30 September 20X5 can be analysed as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure on continuing research projects</td>
<td>1,420,000</td>
</tr>
<tr>
<td>Amortisation of development expenditure capitalised in earlier years</td>
<td>240,000</td>
</tr>
<tr>
<td>New projects started during the year:</td>
<td></td>
</tr>
<tr>
<td>Project A: New flame-proof padding. Expected to cost a total of $800,000 to develop. Expected total revenue $2,000,000 once work completed – probably late 20X6.</td>
<td>280,000</td>
</tr>
<tr>
<td>Project B: New colour-fast dye. Expected to cost a total of $3,000,000 to complete. Future revenues are likely to exceed $5,000,000. The completion date is uncertain because external funding will have to be obtained before research work can be completed.</td>
<td>150,000</td>
</tr>
<tr>
<td>Project C: Investigation of new adhesive recently developed in aerospace industry. If this proves effective then Y Co may well generate significant income because it will be used in place of existing adhesives.</td>
<td>110,000</td>
</tr>
</tbody>
</table>

Total research and development costs: 2,200,000

Explain how the three research projects A, B and C will be dealt with in Y Co’s statement of profit or loss and other comprehensive income and statement of financial position.

In each case, explain your proposed treatment in terms of IAS 38 Intangible assets.

(The answer is at the end of the chapter)

Question 2: Y Co (2)

Show how the research and development costs in the previous question will be disclosed in the financial statements of Y Co listed below.

(a) Statement of profit or loss and other comprehensive income.

(b) Statement of financial position.

(c) Notes to the financial statements.

Assume the cost of capitalised development expenditure brought forward is $1,480,000, and that accumulated amortisation of $240,000 was brought forward at the beginning of the year.

(The answer is at the end of the chapter)
Key chapter points

- An intangible asset is defined by IAS 38 as an identifiable non-monetary asset without physical substance which is:
  - controlled by an entity as a result of a past event, and
  - expected to generate future economic benefits to the entity.
- An intangible asset which meets the recognition criteria of the Conceptual Framework is initially measured at cost.
- The revaluation model may subsequently be applied to intangible assets only where a fair value can be established by reference to an active market.
- Intangible assets with a finite useful life are amortised over that useful life, beginning when the asset is available for use.
- Intangible assets with an indefinite useful life are not amortised but tested each year for impairment, and in addition whenever there are indications of impairment.
- Internally generated goodwill may not be recognised as an asset.
- Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.
- Expenditure on research must always be written off in the period in which it is incurred.
- Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.
- Expenditure on development is written off unless it meets the IAS 38 capitalisation criteria. In this case it is capitalised at cost and amortised.
Quick revision questions

1. XY Co has development expenditure of $500,000. Its policy is to amortise development expenditure at 2% per annum. Accumulated amortisation brought forward is $20,000.

What is the amount shown in the statement of financial position for development expenditure?

A. $470,000  
B. $480,000  
C. $490,000  
D. $500,000

2. Which of the following statements about research and development expenditure are correct according to IAS 38 Intangible assets?

I. If certain conditions are met, an entity may decide to capitalise development expenditure.
II. Research expenditure, other than capital expenditure on research facilities, must be written off as incurred.
III. Capitalised development expenditure must be amortised over a period not exceeding five years.
IV. Capitalised development expenditure must be classified in the statement of financial position under intangible non-current assets.

A. I and III only  
B. II and IV only  
C. III and IV only  
D. I, II and IV only

3. Which of the following should be capitalised as development expenditure?

A. A Co has incurred $140,000 investigating whether a newly identified plant has medicinal properties, and found that it does.
B. B Co has found that a particular chemical compound may be useful in combating flu. A number of large pharmaceutical companies are providing financial backing for B Co.
C. C Co has produced a prototype of a new product however trials in its use have revealed a number of flaws. C Co is currently working on overcoming these flaws with little success.
D. D Co has spent $90,000 making a new fabric resistant to the sun’s rays for use in children’s clothing. Several large manufacturers are interested in the fabric which will be ready for production in the coming year.

4. In the current year High Co has developed a new heat retaining fabric from which clothing suitable for high altitudes will be made. The project meets the IAS 38 criteria for capitalisation and by 30 June 20X8, $210,000 had been capitalised.

The fabric is expected to generate revenue for 10 years from the date on which commercial production commenced on 1 November 20X7, although in the first year only half of the revenue of subsequent years is anticipated. What amount is charged to profit or loss in respect of the fabric in the year ended 30 June 20X8?

A. $7,368  
B. $11,053  
C. $14,000  
D. $21,000
Cranford Co has incurred $40,000 researching chemical compounds in the year ended 30 June 20X8. It has also spent $90,000 developing a new product. The product’s development was completed on 28 February but management has decided to delay commercial production until July 20X8. The product is expected to have a useful life of five years. The development project meets the IAS 38 capitalisation criteria. How should these costs be treated in the year ended 30 June 20X8?

A $40,000 should be written off to profit or loss and $90,000 recognised as an intangible asset
B $46,000 should be written off to profit or loss and $84,000 recognised as an intangible asset
C $100,000 should be written off to profit or loss and $30,000 recognised as an intangible asset
D $130,000 should be written off to profit or loss

Which of the following four statements is correct?

A Amortisation of capitalised development expenditure will appear as an item in a company’s statement of changes in equity.
B Capitalised development costs are classified in the statement of financial position as non-current assets.
C Capitalised development expenditure must be amortised over a period not exceeding five years.
D If all the conditions specified in IAS 38 Intangible assets are met, the directors can choose whether to capitalise the development expenditure or not.

Which of the following are IAS 38 criteria which must be met in order to capitalise an intangible non-current asset?

I The asset must be capable of separate disposal.
II The asset must be within the control of the entity.
III It is probable that future economic benefits will flow to the entity as a result of the asset.
A I and II only
B I and III only
C II and III only
D I, II and III

Which of the following is true?

A An intangible asset can be revalued if its fair value can be established reliably.
B An intangible asset must be amortised.
C Internally generated goodwill can be recognised in the financial statements by reference to the amount of purchased goodwill of a similar company.
D Only certain intangible assets must be reviewed for impairment annually.

Choc Co acquires a chocolate bar brand from a competitor for $900,000 on 1 August 20X9. The brand is considered by Choc Co to have a useful life of 25 years, and in order to maintain its market position, Choc Co have, since acquisition, spent $100,000 on a marketing campaign. What intangible asset is recognised in Choc Co’s statement of financial position at 31 December 20X9?

A $864,000
B $885,000
C $964,000
D $985,000
Clever Co has incurred the following costs in the course of the year ended 30 June 20X9:

- $400,000 training selected staff members to be ‘World Class Knowledge Holders’ (an internal qualification which is believed to result in increased sales).
- $100,000 acquiring patents.
- $200,000 advertising new products. The advertising is expected to result in a doubling of sales in the coming year.

What amount should Clever Co capitalise as an intangible asset in respect of these items in the year ended 30 June 20X9?

A $100,000  
B $300,000  
C $500,000  
D $600,000
1. A  Deferred development expenditure b/f is $480,000 (cost $500,000 – accumulated amortisation $20,000), then deduct annual depreciation of $10,000 to give figure c/f of $470,000.

2. B  I  Development expenditure must be capitalised if the criteria are met.
   III  There is no time scale given by IAS 38 for amortisation.

3. D  A and B are still in the research phase; C is in the development phase however problems mean that it is still sufficiently distant from commercial production to write off expenses as incurred.

4. A  Amortisation commences when production commences and therefore the amortisation charge relates to an eight-month period. Amortisation should reflect the pattern of benefits; in this case the first year’s benefit is half that of later years, therefore:
   \[ \frac{0.5}{9.5} \times 210,000 \times \frac{8}{12} = 7,368 \]
   * There are 10 years of amortisation, although the first year attracts only half the charge of the subsequent nine years. Therefore the denominator is 9.5, being (1 year \( \times \frac{1}{2} \)) + (9 years \( \times 1 \))

5. A  Amortisation does not start until commercial production commences.

6. B  Intangible assets meeting the capitalisation criteria of IAS 38 must be capitalised and depreciated where they have a finite life. Any intangible assets which are deemed to have an indefinite life are instead tested annually for impairment. Any amortisation is charged to profit or loss.

7. C  The asset must be identifiable. An asset which is capable of separate disposal is identifiable however separability is not an essential feature of an intangible asset. For example, production rights may not be capable of separate sale without a particular machine, however they still qualify as an intangible asset.

8. D  Only intangible assets which have an indefinite useful life or are not yet available for use must be reviewed for impairment annually. All others undergo an impairment review if there are indications of an impairment.

9. B  $900,000/25 \times 5/12 months = $15,000 amortisation to the end of the year.
   Therefore carrying amount is $900,000 – $15,000 = $885,000.
   Marketing costs must be expensed as incurred.

10. A  Patents are purchased intangible assets and as such should be capitalised. The costs of staff training and advertising, even where these are expected to result in future economic benefits cannot be capitalised according to IAS 38.
Answers to chapter questions

1  
**Project A**

This project meets the criteria in IAS 38 for development expenditure to be recognised as an asset. The project is technically feasible and the company intends to complete it so that the resulting product will be available for sale. There is a market for the product and its sale will result in future economic benefits. In the absence of other information it is assumed that the company has adequate technical, financial and other resources to complete the development and to use or sell the intangible asset. The company is clearly able to measure reliably the expenditure attributable to the intangible asset during its development, because it has been able to estimate total costs and expected revenue.

Hence the costs of $280,000 incurred to date should be transferred from research and development costs to capitalised development expenditure and carried forward until revenues are generated; they should then be matched with those revenues.

**Project B**

While this project meets most of the criteria discussed above which would enable the costs to be carried forward it fails on the requirements that ‘adequate resources exist, or their availability can be demonstrated, to complete the project’.

Therefore, these costs should be written off as an expense in profit or loss. Once funding is obtained the situation can then be reassessed and future costs may be capitalised.

**Project C**

This is a research project according to IAS 38, i.e. original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge or understanding.

There is no certainty as to its ultimate success or commercial viability and therefore it cannot be considered to be a development project. IAS 38 therefore requires that costs be written off as incurred.

2  
(a) **STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME**  
(EXTRACT)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research expenditure (Project C + $1,420,000)</td>
<td>1,530,000</td>
</tr>
<tr>
<td>Development costs (Project B)</td>
<td>150,000</td>
</tr>
<tr>
<td>Amortisation of capitalised development costs</td>
<td>240,000</td>
</tr>
</tbody>
</table>

(b) **STATEMENT OF FINANCIAL POSITION**  
(EXTRACT)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Intangible assets</td>
<td></td>
</tr>
<tr>
<td>Deferred development costs</td>
<td>1,280,000</td>
</tr>
</tbody>
</table>

(c) **NOTE TO FINANCIAL STATEMENTS**

**Deferred development costs**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>Balance b/f</td>
<td>1,480,000</td>
</tr>
<tr>
<td>Additions during year (Project A)</td>
<td>280,000</td>
</tr>
<tr>
<td>Balance c/f</td>
<td>1,760,000</td>
</tr>
<tr>
<td>Amortisation</td>
<td></td>
</tr>
<tr>
<td>Balance b/f</td>
<td>240,000</td>
</tr>
<tr>
<td>Charge during year</td>
<td>240,000</td>
</tr>
<tr>
<td>Balance c/f</td>
<td>480,000</td>
</tr>
<tr>
<td>Net carrying amount at 30 September 20X5</td>
<td>1,280,000</td>
</tr>
<tr>
<td>Net carrying amount at 30 September 20X4</td>
<td>1,240,000</td>
</tr>
</tbody>
</table>
Chapter 7

Impairment of assets

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of profit or loss and other comprehensive income</td>
<td>LO2</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit or loss and other comprehensive income; statement of changes in equity; and statement of financial position</td>
<td>LO2.2</td>
</tr>
<tr>
<td>Statement of financial position</td>
<td>LO3</td>
</tr>
<tr>
<td>Apply the provisions of IAS 1 for disclosures to be made in a statement of profit or loss and other comprehensive income; statement of changes in equity; statement of financial position</td>
<td>LO3.1</td>
</tr>
</tbody>
</table>

**Topic list**

1. Impairment of individual assets
2. Cash generating units (CGUs)
3. Accounting treatment of an impairment loss
IAS 36 is an important Standard. It deals with falls in value, or impairments, of both tangible and intangible non-current assets and cash-generating units.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1 Identify indicators of an impairment. (Section 1.2)
2 Which assets must be tested for impairment annually? (Section 1.2)
3 What is the recoverable amount of an asset? (Section 1.3)
4 When should an impairment loss be recognised? (Section 1.4)
5 Where is an impairment loss recognised? (Section 1.4)
6 What is a CGU? (Section 2)
7 How are impairment losses allocated to a CGU? (Section 3)
1 Impairment of individual assets

Section overview

- Impairment is determined by comparing the carrying amount of the asset with its recoverable amount. This is the higher of its \textit{fair value less costs of disposal} and its \textit{value in use}.

There is an established principle that assets should not be carried at above their recoverable amount. An entity should write down the carrying amount of an asset to its recoverable amount if the carrying amount of an asset is not recoverable in full. IAS 36 \textit{Impairment of assets} puts in place a detailed methodology for carrying out impairment reviews and related accounting treatments and disclosures.

1.1 Scope

IAS 36 applies to most tangible and intangible assets, but certain asset types are excluded because they are covered specifically by another standard. These include inventories (covered by IAS 2), assets arising from construction contracts (IAS 11), deferred tax assets (IAS 12), financial assets that are within the scope of IAS 39, investment property that is measured at fair value (IAS 40) and a small number of other asset types.

Definitions

\textbf{Impairment}: a fall in the value of an asset, so that its 'recoverable amount' is now less than its carrying amount in the statement of financial position.

\textbf{Carrying amount}: is the amount at which an asset is recognised after deducting accumulated depreciation and any impairment losses.

The basic principle underlying IAS 36 is relatively straightforward. If an asset’s value in the accounts is higher than its realistic value, measured as its 'recoverable amount', the asset is judged to have suffered an impairment loss. It should therefore be reduced in value, by the amount of the \textit{impairment loss}. The general rule is that the amount of the impairment loss should be \textit{written off against profit or loss} immediately (exceptions will be covered later).

The main accounting issues to consider are therefore as follows:

(a) How is it possible to \textbf{identify when} an impairment loss may have occurred?
(b) How should the \textbf{recoverable amount} of the asset be measured?
(c) How should an 'impairment loss' be \textbf{reported in the accounts}?

1.2 Identifying a potentially impaired asset

An entity should assess at the end of each reporting period whether there are any indications of impairment to any assets. The concept of \textbf{materiality} applies, and only material impairment needs to be identified.

If there are indications of possible impairment, the entity is required to make a formal estimate of the \textbf{recoverable amount} of the assets concerned.

IAS 36 suggests how \textbf{indicators of a possible impairment} of assets might be recognised. The suggestions are based largely on common sense.

(a) \textbf{External sources of information}

(i) A fall in the asset’s market value that is more significant than would normally be expected from passage of time or normal use.

(ii) A significant change in the technological, market, legal or economic environment of the business in which the assets are employed.
(iii) An increase in market interest rates or market rates of return on investments likely to affect the discount rate used in calculating value in use.

(iv) The carrying amount of the entity’s net assets being more than its market capitalisation.

(b) Internal sources of information: evidence of obsolescence or physical damage, adverse changes in the use to which the asset is put, or the asset’s economic performance.

Even if there are no indications of impairment, the following assets must always be tested for impairment annually:

(a) An intangible asset with an indefinite useful life
(b) An intangible asset which is not yet available for use
(c) Goodwill acquired in a business combination

1.3 Measuring the recoverable amount of the asset

What is an asset’s recoverable amount?

Definition

The recoverable amount of an asset should be measured as the higher value of:

(a) the asset’s fair value less costs of disposal; and

(b) its value in use.  

IAS 36

An asset’s fair value less costs of disposal is the amount net of selling costs that could be obtained from the sale of the asset. Selling costs include sales transaction costs, such as legal expenses.

Net selling price cannot be reduced, however, by including within selling costs any restructuring or reorganisation expenses, or any costs that have already been recognised in the accounts as liabilities.

The concept of ‘value in use’ is very important.

Definition

The value in use of an asset is measured as the present value of estimated future cash flows (inflows minus outflows) generated by the asset, including its estimated net disposal value (if any) at the end of its expected useful life.

1.4 Recognition and measurement of an impairment loss

The rule for assets at historical cost is:

Rule to learn

If the recoverable amount of an asset is lower than the carrying amount, the carrying amount should be reduced by the difference (i.e. the impairment loss) which should be charged as an expense in profit or loss.

The rule for assets held at a revalued amount (such as property revalued under IAS 16) is:

Rule to learn

The impairment loss is to be treated as a revaluation decrease under the relevant IAS.

In practice this means:

- To the extent that there is a revaluation surplus held in respect of the asset, the impairment loss should be charged to the revaluation surplus.
- Any excess should be charged to profit or loss.
2 Cash generating units (CGUs)

Section overview

- When it is not possible to calculate the recoverable amount of a single asset, then that of its cash generating unit should be measured instead.

The IAS goes into quite a large amount of detail about the important concept of cash generating units. As a basic rule, the recoverable amount of an asset should be calculated for the asset individually. However, there will be occasions when it is not possible to estimate such a value for an individual asset, particularly in the calculation of value in use. This is because cash inflows and outflows cannot be attributed to the individual asset.

If it is not possible to calculate the recoverable amount for an individual asset, the recoverable amount of the asset's cash-generating unit should be measured instead.

Definition

A cash-generating unit is the smallest identifiable group of assets for which independent cash inflows can be identified and measured.

Question 1: Cash-generating unit

Can you think of some examples of how a cash-generating unit would be identified?

(The answer is at the end of the chapter)

Question 2: Cash-generating unit

Minimart belongs to a retail store chain Maximart. Minimart makes all its retail purchases through Maximart’s purchasing centre. Pricing, marketing, advertising and human resources policies (except for hiring Minimart’s cashiers and salesmen) are decided by Maximart. Maximart also owns five other stores in the same city as Minimart (although in different neighbourhoods) and 20 stores in other cities. All stores are managed in the same way as Minimart. Minimart and four other stores were purchased five years ago and goodwill was recognised.

What is the cash-generating unit for Minimart?

(The answer is at the end of the chapter)

Cash-generating units should be identified consistently from period to period for the same type of asset unless a change is justified.

The group of net assets less liabilities that are considered for impairment should be the same as those considered in the calculation of the recoverable amount. (For the treatment of goodwill and corporate assets see below.)

2.1 Allocating goodwill to cash-generating units

Goodwill acquired in a business combination does not generate cash flows independently of other assets. It must be allocated to each of the acquirer’s cash-generating units (or groups of cash-generating units) that are expected to benefit from the synergies of the combination.

2.2 Testing cash-generating units with goodwill for impairment

There are two situations to consider:
(a) Where goodwill has been allocated to a cash-generating unit.

(b) Where it has not been possible to allocate goodwill to a specific cash-generating unit, but only to a group of units.

A cash-generating unit to which goodwill has been allocated is tested for impairment annually. The carrying amount of the unit, including goodwill, is compared with the recoverable amount. If the carrying amount of the unit exceeds the recoverable amount, the entity must recognise an impairment loss.

Where goodwill relates to a cash-generating unit but has not been allocated to that unit, the unit is tested for impairment by comparing its carrying amount (excluding goodwill) with its recoverable amount. The entity must recognise an impairment loss if the carrying amount exceeds the recoverable amount.

The annual impairment test may be performed at any time during an accounting period, but must be performed at the same time every year.

2.3 Corporate assets

Corporate assets are group or divisional assets such as a head office building, computer equipment or a research centre. Essentially, corporate assets are assets that do not generate cash inflows independently from other assets. Therefore, their carrying amount cannot be fully attributed to a cash-generating unit under review.

In testing a cash-generating unit for impairment, an entity should identify all the corporate assets that relate to the cash-generating unit:

(a) If a portion of the carrying amount of a corporate asset can be allocated to the unit on a reasonable and consistent basis, the entity compares the carrying amount of the unit (including the portion of the asset) with its recoverable amount.

(b) If a portion of the carrying amount of a corporate asset cannot be allocated to the unit on a reasonable and consistent basis, the entity:
   (i) Compares the carrying amount of the unit (excluding the asset) with its recoverable amount and recognises any impairment loss.
   (ii) Identifies the smallest group of cash-generating units that includes the cash-generating unit to which the asset belongs and to which a portion of the carrying amount of the asset can be allocated on a reasonable and consistent basis.
   (iii) Compares the carrying amount of that group of cash-generating units (including the portion of the asset allocated to the group of units) with the recoverable amount of the group of units and recognises any impairment loss.

3 Accounting treatment of an impairment loss

Section overview

- An impairment loss is recognised immediately in profit or loss unless the asset has been revalued, in which case the loss is treated as a revaluation decrease.

If, and only if, the recoverable amount of an asset is less than its carrying amount in the statement of financial position, an impairment loss has occurred. This loss should be recognised immediately.

As we saw earlier:

(a) The asset's carrying amount should be reduced to its recoverable amount in the statement of financial position.

(b) The impairment loss should be recognised immediately in profit or loss (unless the asset has been revalued in which case the loss is treated as a revaluation decrease).

After reducing an asset to its recoverable amount, the depreciation charge on the asset should then be based on its new carrying amount, its estimated residual value (if any) and its estimated remaining useful life.
An impairment loss should be recognised for a cash generating unit if (and only if) the recoverable amount for the cash generating unit is less than the carrying amount in the statement of financial position for all the assets in the unit. When an impairment loss is recognised for a cash generating unit, the loss should be allocated between the assets in the unit in the following order:

(a) First, to any assets that are obviously damaged or destroyed.
(b) Next, to the goodwill allocated to the cash generating unit.
(c) Then to all other assets in the cash-generating unit, on a pro rata basis.

Note that point (c) refers to ‘all other assets in the cash generating unit’, however you should remember that some assets such as inventory are outside the scope of IAS 36 (see Section 1.1) and are therefore not included within ‘all other assets’.

In allocating an impairment loss, the carrying amount of an asset should not be reduced below the highest of:

(a) Its fair value less costs of disposal.
(b) Its value in use (if determinable).
(c) Zero.

Any remaining amount of an impairment loss should be recognised as a liability if required by other IFRSs.

Example: Impairment loss (1)
A company that extracts natural gas and oil has a drilling platform in the Caspian Sea. It is required by legislation of the country concerned to remove and dismantle the platform at the end of its useful life. Accordingly, the company has included an amount in its accounts for removal and dismantling costs, and is depreciating this amount over the platform’s expected life.

The company is carrying out an exercise to establish whether there has been an impairment of the platform.

(a) Its carrying amount in the statement of financial position is $3m.
(b) The company has received an offer of $2.8m for the platform from another oil company. The bidder would take over the responsibility (and costs) for dismantling and removing the platform at the end of its life.
(c) The present value of the estimated cash flows from the platform’s continued use is $3.3m (before adjusting for dismantling costs).
(d) The carrying amount in the statement of financial position for the provision (a liability) for dismantling and removal is currently $0.6m.

What should be the value of the drilling platform in the statement of financial position, and what, if anything, is the impairment loss?

Solution

Fair value less costs of disposal = $2.8m

Value in use = PV of cash flows from use less the carrying amount of the provision / liability = $3.3m – $0.6m = $2.7m

Recoverable amount = Higher of these two amounts, i.e. $2.8m

Carrying amount = $3m

Impairment loss = $0.2m

The carrying amount should be reduced to $2.8m

Example: Impairment loss (2)
A company has acquired another business for $4.5m: tangible assets are valued at $4.0m and goodwill at $0.5m.

An asset with a carrying amount of $1m is destroyed in a terrorist attack. The asset was not insured. The loss of the asset, without insurance, has prompted the company to assess whether there has been an impairment of assets in the acquired business and what the amount of any such loss is.

The recoverable amount of the business (a single cash generating unit) is measured as $3.1m.
Solution
There has been an impairment loss of $1.4m ($4.5m – $3.1m).

The impairment loss will be recognised in profit or loss. The loss will be allocated between the assets in the cash generating unit as follows:

(a) A loss of $1m can be attributed directly to the uninsured asset that has been destroyed.
(b) The remaining loss of $0.4m should be allocated to goodwill.

The carrying amount of the assets will now be $3m for tangible assets and $0.1m for goodwill.

3.1 Reversal of an impairment loss

The annual assessment to determine whether there may have been some impairment should be applied to all assets, including assets that have already been impaired in the past.

In some cases, the recoverable amount of an asset that has previously been impaired might turn out to be higher than the asset’s current carrying amount. In other words, there might have been a reversal of some of the previous impairment loss.

In this case, the carrying amount of the asset should be increased to its new recoverable amount, which should not exceed the asset’s carrying amount at that date had the original impairment loss not occurred.

- A reversal of an impairment loss on an asset held at historic cost is recognised immediately in profit or loss.
- A reversal of an impairment loss on a revalued asset is recognised in profit or loss to the extent that the original impairment loss was recognised in profit or loss. The balance of the reversal is recognised as other comprehensive income and increases the revaluation surplus for that asset.

An exception to this rule is for goodwill. An impairment loss for goodwill should not be reversed in a subsequent period.

Question 3: Reversal of impairment loss

A cash generating unit comprising a factory, plant and equipment etc and associated purchased goodwill becomes impaired because the product it makes is overtaken by a technologically more advanced model produced by a competitor. The recoverable amount of the cash generating unit falls to $60m, resulting in an impairment loss of $80m, allocated as follows:

<table>
<thead>
<tr>
<th>Carrying amounts before impairment</th>
<th>Carrying amounts after impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodwill</td>
<td>40</td>
</tr>
<tr>
<td>Patent (with no market value)</td>
<td>20</td>
</tr>
<tr>
<td>Tangible non-current assets (market value $60m)</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
</tr>
</tbody>
</table>

After three years, the entity makes a technological breakthrough of its own, and the recoverable amount of the cash generating unit increases to $90m. The carrying amount of the tangible non-current assets had the impairment not occurred would have been $70m.

Required
Calculate the reversal of the impairment loss.

(The answer is at the end of the chapter)
Key chapter points

- Impairment is determined by comparing the carrying amount of the asset with its recoverable amount. This is the higher of its fair value less costs of disposal and its value in use.
- If the recoverable amount of an asset is lower than the carrying amount, the carrying amount should be reduced by the difference.
- For an asset held at historical cost, the impairment should be charged as an expense in profit or loss.
- For a revalued asset, the impairment loss is treated as a revaluation decrease under the relevant IFRS.
- When it is not possible to calculate the recoverable amount of a single asset, then that of its cash generating unit should be measured instead.
- A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets of groups of assets.
- Goodwill and corporate assets must be allocated to each of the acquirer’s cash-generating units (or groups of cash-generating units) that are expected to benefit from the synergies of the combination.
- When an impairment loss is recognised for a cash generating unit, the loss should be allocated between the assets in the unit in the following order:
  (a) First, to any assets that are obviously damaged or destroyed.
  (b) Next, to the goodwill allocated to the cash generating unit.
  (c) Then to all other assets in the cash-generating unit (and within the scope of IAS 36) on a pro rata basis.
Quick revision questions

1. Which of the following represents the correct treatment of a revaluation surplus arising on a property and an impairment loss on an asset which has not previously been revalued?

<table>
<thead>
<tr>
<th>Revaluation surplus</th>
<th>Impairment loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Other comprehensive income</td>
<td>Other comprehensive income</td>
</tr>
<tr>
<td>B Other comprehensive income</td>
<td>Profit or loss</td>
</tr>
<tr>
<td>C Profit or loss</td>
<td>Other comprehensive income</td>
</tr>
<tr>
<td>D Profit or loss</td>
<td>Profit or loss</td>
</tr>
</tbody>
</table>

2. At 1 May 20X4 the revaluation surplus of Bloxden was $1,257,000. This was in respect of the company’s head office.

   During the year to 30 April 20X5 the value of the head office increased by a further $82,000. In the same period, the company’s factory suffered an impairment of $90,000.

   What is the value of the revaluation surplus at 30 April 20X5?

   A $1,167,000
   B $1,249,000
   C $1,257,000
   D $1,339,000

3. Which of the following statements about IAS 36 *Impairment of assets* are correct?

   I Non-current assets must undergo an annual impairment test.
   II An impairment loss must be recognised immediately in profit or loss, except that all or part of a loss on a revalued asset should be charged against any related revaluation surplus.
   III If individual assets cannot be tested for impairment, it may be necessary to test a group of assets as a unit.

   A I and II only
   B I and III only
   C II and III only
   D I, II and III

4. A cash generating unit comprises the following:

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>20</td>
</tr>
<tr>
<td>Plant and equipment</td>
<td>10</td>
</tr>
<tr>
<td>Goodwill</td>
<td>5</td>
</tr>
<tr>
<td>Current assets</td>
<td>10</td>
</tr>
</tbody>
</table>

   Following a downturn in the market, an impairment review has been undertaken and the recoverable amount of the cash generating unit is estimated to be $25m.

   What is the carrying amount of the building after adjusting for the impairment loss?

   A $10m
   B $11m
   C $12.5m
   D $20m
On 1 January 20X5 Plane Co acquired 60% of the equity share capital of Sycamore Co. Goodwill of $100 000 arose on the acquisition.

Sycamore Co’s performance for the years ended 31 December 20X5 and 31 December 20X6 slightly exceeded budget. However, in the year ended 31 December 20X7 it made substantial losses that had not been forecast.

The goodwill arising on the acquisition of Sycamore Co should be reviewed for impairment

A. annually
B. in 20X5
C. in 20X7
D. in 20X5 and in 20X7

Man Co bought a property on 1 April 20X5 costing $700 000 and commenced depreciation over a 50-year period. On 1 April 20X7, the property was revalued to $960 000 and depreciation continued over the remaining useful life. Man Co makes an annual reserve transfer in respect of excess depreciation. On 31 March 20X8, as the result of fire damage, the property was found to be impaired with a recoverable amount of $600 000.

Which of the following is true for the year ended 31 March 20X8?

A. An impairment loss of $340 000 arises, $288 000 is debited to the revaluation surplus and $64 000 to profit or loss
B. An impairment loss of $340 000 arises, $282 000 is debited to the revaluation surplus and $58 000 to profit or loss
C. An impairment loss of $340 800 arises, $282 800 is debited to the revaluation surplus and $58 000 to profit or loss
D. An impairment loss of $340 800 arises, $288 000 is debited to the revaluation surplus and $52 800 to profit or loss

Skipton Co bought land 11 years ago in 20W8 at a cost of $300 000. In 20X3 the land was revalued to $350 000 and in 20X6 it was revalued again to $400 000. At the end of 20X9 the land had a value in use of $270 000 and the fair value less costs of disposal was $285 000.

How is the resulting impairment loss recorded?

A. $50 000 as other comprehensive income and $65 000 in profit or loss
B. $50 000 as other comprehensive income and $80 000 in profit or loss
C. $100 000 as other comprehensive income and $15 000 in profit or loss
D. $100 000 as other comprehensive income and $30 000 in profit or loss

Pannal Co recorded an impairment of its goodwill five years ago, reducing the carrying amount by half. The management of Pannal now believes that the value of goodwill has increased again to 75% of its original value. Which of the following is true?

A. The reversal of the impairment loss can not be recognised.
B. The reversal of the impairment loss should be recognised in profit or loss.
C. The reversal of the impairment loss should be recognised in other comprehensive income.
D. The reversal of the impairment loss is recognised in either other comprehensive income or profit or loss depending on how the initial impairment was recognised.

Denton Co acquired a piece of machinery on 1 July 20X7 for $80 000 and commenced depreciation on a straight line basis over 10 years. At 31 December 20X8, the machine was tested for impairment as a result of a downturn in the market. It was found to have a value in use of $66 000 and the fair value less costs of disposal was $60 000.

What was the depreciation charge on the machine in the year ended 31 December 20X9 assuming that there was no change in useful life?

A. $7 059
B. $7 529
C. $7 765
D. $8 000
10 Which of the following statements is true?

I A head office building which is shared by a number of cash generating units is always tested for impairment on an individual basis.

II An intangible asset with an indefinite useful life must be tested for impairment at the end of each reporting period.

A I only
B II only
C Both statements
D Neither statement
Answers to quick revision questions

1 B A revaluation surplus is recognised as other comprehensive income in the period in which it arises. An impairment loss suffered on a previously revalued asset may be recognised as other comprehensive income to the extent that a revaluation surplus exists in respect of that asset. An impairment loss suffered on an asset held at depreciated cost must be recognised in profit or loss.

2 D The impairment would have been written off to profit or loss as there is no credit in the revaluation surplus for this asset. So only the increase in head office value appears in the revaluation surplus.

3 C Most non-current assets only require testing for impairment if there are indicators of impairment, rather than annually.

4 A The impairment loss is applied first against the goodwill and then against the other non-current assets on a pro-rata basis. It will be allocated as follows:

<table>
<thead>
<tr>
<th>$m</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Building</td>
<td>10</td>
</tr>
<tr>
<td>Plant and equipment</td>
<td>5</td>
</tr>
<tr>
<td>Goodwill</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
</tr>
</tbody>
</table>

The carrying amount of the building will then become $10m (20 – 10).

5 A Goodwill acquired in a business combination should be reviewed for impairment annually.

6 B Goodwill acquired in a business combination should be reviewed for impairment annually.

7 C Goodwill acquired in a business combination should be reviewed for impairment annually.

---

Property | Revaluation reserve
---------|-------------------
Cost 1 April 20X5 | 700 000
Depreciation (700 000 x 2/50) | (28 000)
CV at 1 April 20X7 | 672 000
Revaluation surplus | 288 000
                   | 288 000
(960 000/48) | (20 000)
Excess depreciation (20 – 14) | (6 000)
CV at 31 March 20X8 | 940 000
Impairment loss | (340 000)
Impaired value | 600 000

Revaluation reserve

<table>
<thead>
<tr>
<th>$</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>300 000</td>
</tr>
<tr>
<td>Revaluation</td>
<td>50 000</td>
</tr>
<tr>
<td>X3</td>
<td>350 000</td>
</tr>
<tr>
<td>Revaluation</td>
<td>50 000</td>
</tr>
<tr>
<td>X4</td>
<td>400 000</td>
</tr>
<tr>
<td>Impairment</td>
<td>(115 000)</td>
</tr>
<tr>
<td>FV less costs of disposal</td>
<td>285 000</td>
</tr>
</tbody>
</table>

The balance of the impairment loss ($15 000) is charged to profit or loss.
A reversal of an impairment loss in relation to goodwill can not be recognised.

The carrying amount of the machine on the date of the impairment test is $68,000 ($80,000 x 8.5/10). The recoverable amount is $66,000 (the higher of the value in use and the fair value less costs of disposal). Therefore the asset is impaired and its carrying amount is reduced to $66,000. The depreciation charge for the following year is therefore $66,000/8.5 years.

A head office building which is shared by a number of CGUs (a corporate asset) is only tested for impairment on an individual basis if it cannot be allocated to CGUs on a reasonable and consistent basis. An intangible asset with an indefinite useful life is tested for impairment annually; however the test may take place at any time during the reporting period providing that it is the same time each year.
1. Here are two possibilities:

(a) A mining company owns a private railway that it uses to transport output from one of its mines. The railway now has no market value other than as scrap, and it is impossible to identify any separate cash inflows with the use of the railway itself. Consequently, if the mining company suspects an impairment in the value of the railway, it should treat the mine as a whole as a cash generating unit, and measure the recoverable amount of the mine as a whole.

(b) A bus company has an arrangement with a town’s authorities to run a bus service on four routes in the town. Separately identifiable assets are allocated to each of the bus routes, and cash inflows and outflows can be attributed to each individual route. Three routes are running at a profit and one is running at a loss. The bus company suspects that there is an impairment of assets on the loss-making route. However, the company will be unable to close the loss-making route, because it is under an obligation to operate all four routes, as part of its contract with the local authority. Consequently, the company should treat all four bus routes together as a cash generating unit, and calculate the recoverable amount for the unit as a whole.

2. In identifying Minimart’s cash-generating unit, an entity considers whether, for example:

(a) Internal management reporting is organised to measure performance on a store-by-store basis.

(b) The business is run on a store-by-store profit basis or on a region or city basis.

All Maximart’s stores are in different neighbourhoods and probably have different customer bases. So, although Minimart is managed at a corporate level, Minimart generates cash inflows that are largely independent from those of Maximart’s other stores. Therefore, it is likely that Minimart is a cash-generating unit.

3. The reversal of the impairment loss is recognised to the extent that it increases the carrying amount of the tangible non-current assets to what it would have been had the impairment not taken place, i.e. a reversal of the impairment loss of $10m is recognised and the tangible non-current assets written back to $70m. Reversal of the impairment is not recognised in relation to the goodwill and patent because the effect of the external event that caused the original impairment has not reversed – the original product is still overtaken by a more advanced model.
Chapter 8

Taxation

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<th>Reference</th>
</tr>
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<td>LO2</td>
</tr>
<tr>
<td>Apply the requirements of IAS 12 <em>Income taxes</em> and prepare associated journal entries</td>
<td>LO2.4</td>
</tr>
<tr>
<td>Statement of financial position</td>
<td>LO3</td>
</tr>
<tr>
<td>Apply the requirements of IAS 12 <em>Income taxes</em> and prepare associated journal entries</td>
<td>LO3.3</td>
</tr>
</tbody>
</table>

Topic list

1. Current tax
2. Deferred tax
3. Taxable temporary differences
4. Deductible temporary differences
5. Measurement and recognition of deferred tax
6. Taxation in company accounts
In almost all countries entities are taxed on the basis of their trading profits. In some countries this may be called corporation or corporate tax, but we will follow the terminology of IAS 12 Income taxes and call it income tax. There are two aspects of income tax which must be accounted for: current tax and deferred tax. These will be discussed in Sections 1 and 2 respectively.

Note. Throughout this chapter we will assume a current corporate income tax rate of 30 per cent unless otherwise stated.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

<table>
<thead>
<tr>
<th>Question</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 What is current tax?</td>
<td>(Section 1.2)</td>
</tr>
<tr>
<td>2 How is current tax recorded in the financial statements?</td>
<td>(Section 1.3)</td>
</tr>
<tr>
<td>3 What is an overprovision and how is it accounted for?</td>
<td>(Section 1.3)</td>
</tr>
<tr>
<td>4 What is deferred tax?</td>
<td>(Section 2.1)</td>
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<td>5 How is a temporary difference calculated?</td>
<td>(Section 2.4)</td>
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<tr>
<td>6 What is the tax base of an asset?</td>
<td>(Section 2.3)</td>
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<tr>
<td>7 What is a taxable temporary difference?</td>
<td>(Section 3.1)</td>
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<tr>
<td>8 Give examples of situations in which a taxable temporary difference may arise.</td>
<td>(Section 3.2)</td>
</tr>
<tr>
<td>9 What is a deductible temporary difference?</td>
<td>(Section 4.1)</td>
</tr>
<tr>
<td>10 Give examples of situations in which a deductible temporary difference may arise.</td>
<td>(Section 4.2)</td>
</tr>
<tr>
<td>11 What tax rate should be applied to temporary differences?</td>
<td>(Section 5.1)</td>
</tr>
<tr>
<td>12 Where is the movement in deferred tax recognised?</td>
<td>(Section 5.4)</td>
</tr>
<tr>
<td>13 What elements make up the tax charged to profit or loss?</td>
<td>(Section 6.1)</td>
</tr>
</tbody>
</table>
Current tax

Section overview
- Current tax is the amount payable to the tax authorities in relation to the trading activities of the period.

1.1 IAS 12 Income taxes

IAS 12 covers both current and deferred tax. The parts relating to current tax are fairly brief, because this is the simple and uncontroversial area of tax.

1.2 Definitions

These are some of the definitions given in IAS 12. We will look at the rest later.

Definitions

Accounting profit. Net profit or loss for a period before deducting tax expense.

Taxable profit (tax loss). The profit (loss) for a period, determined in accordance with the rules established by the taxation authorities, upon which income taxes are payable (recoverable).

Tax expense (tax income). The aggregate amount included in the determination of net profit or loss for the period in respect of current tax and deferred tax.

Current tax. The amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period. (IAS 12)

Before we go any further, let us be clear about the difference between current and deferred tax.

(a) Current tax is the estimated amount payable to the tax authorities in relation to the trading activities of the entity during the period.

(b) Deferred tax is an accounting measure, used to match the tax effects of transactions with their accounting impact and thereby produce less distorted results.

You should understand this a little better after working through Section 2.

1.3 Recognition of current tax liabilities and assets

IAS 12 requires any unpaid tax in respect of the current period to be charged to profit or loss and recognised as a liability:

DEBIT Tax expense (profit or loss)
CREDIT Tax liability (statement of financial position)

This liability is normally estimated at the year end, and settled a number of months later, in the next accounting period. Often the tax actually paid differs from the liability recorded.

Where the liability estimated at a period end is greater than the tax later paid, the balance remaining on the tax liability account is termed an overprovision. This is deducted from the following year’s tax charge.

Where the liability estimated at a period end is less than the tax later paid, the balance remaining on the tax liability account is termed an underprovision. The following year’s tax charge is increased by this amount.
Therefore, the charge to profit or loss shown in the statement of profit or loss and other comprehensive income in relation to current tax is calculated as:

\[
\text{Estimated tax charge for the current year} \times \\
\text{Under/(over) provision relating to the previous year} \div (\times)
\]

IAS 12 refers to overprovisions and underprovisions as **adjustments for current tax of prior periods**. Where **excess tax** is paid in respect of current or prior periods over what is due, this should be recognised as an **asset**.

**Question 1: Current tax**

In 20X8 Darton Co had taxable profits of $120 000. In the previous year (20X7) income tax on 20X7 profits had been estimated as $30 000.

**Required**

Calculate tax payable and the charge for 20X8 if the tax due on 20X7 profits was subsequently paid to the tax authorities as:

\(a\) $35 000; or
\(b\) $25 000.

(The answer is at the end of the chapter)

Taking this a stage further, IAS 12 also requires recognition as an asset of the benefit relating to any tax loss that can be **carried back** to recover current tax of a previous period. This is acceptable because it is probable that the benefit will flow to the entity and it can be reliably measured.

**Example: Tax losses carried back**

In 20X7 Eramu Co paid $50 000 in tax on its profits. In 20X8 the company made tax losses of $24 000. The local tax authority rules allow losses to be carried back to offset against current tax of prior years.

**Required**

Show the tax expense and tax liability for 20X8.

**Solution**

Tax repayment due on tax losses = \(30\% \times 24\ 000 = 7\ 200\).

The double entry will be:

DEBIT Tax receivable (statement of financial position) $7 200
CREDIT Tax repayment (profit or loss) $7 200

The tax receivable will be shown as an asset until the repayment is received from the tax authorities.

**1.4 Measurement**

Measurement of current tax liabilities (assets) for the current and prior periods is very simple. They are measured at the **amount expected to be paid to (recovered from) the tax authorities**. The tax rates (and tax laws) used should be those enacted (or substantively enacted) by the end of the reporting period.
1.5 Recognition of current tax

Normally, current tax is recognised as income or expense and included in the net profit or loss for the period, except in two cases:

(a) Tax arising from a business combination is treated differently. (Tax assets or liabilities of the acquired subsidiary will form part of the goodwill calculation.)

(b) Tax arising from a transaction or event which is recognised directly in equity or as other comprehensive income (in the same or a different period).

The rule in (b) is logical. If a transaction or event is charged or credited directly to equity, or as other comprehensive income rather than to profit or loss, then the related tax should also be. An example of such a situation is where, under IAS 8, an adjustment is made to the opening balance of retained earnings due to either a change in accounting policy that is applied retrospectively, or to the correction of a material prior period error (see Chapter 2).

1.6 Presentation

In the statement of financial position, tax assets and liabilities should be shown separately from other assets and liabilities.

Current tax assets and liabilities can be offset, but this should only happen when certain conditions apply:

(a) The entity has a legally enforceable right to set off the recognised amounts; and

(b) The entity intends to settle the amounts on a net basis, or to realise the asset and settle the liability at the same time.

The tax expense (income) related to the profit or loss from ordinary activities should be shown in the statement of profit or loss and other comprehensive income.

The disclosure requirements of IAS 12 are extensive and we will look at these later in the chapter.

2 Deferred tax

2.1 What is deferred tax?

When a company recognises an asset or liability, it expects to recover or settle the carrying amount of that asset or liability. In other words, it expects to sell or use up assets, and to pay off liabilities. What happens if that recovery or settlement is likely to make future tax payments larger (or smaller) than they would otherwise have been if the recovery or settlement had no tax consequences? In these circumstances, IAS 12 requires companies to recognise a deferred tax liability (or deferred tax asset).

2.2 Definitions

Don’t worry too much if you don’t understand the concept of deferred tax yet; things should become clearer as you work through this section. First of all, here are the definitions relating to deferred tax given in IAS 12.
Definitions

Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences.

Deferred tax assets are the amounts of income taxes recoverable in future periods in respect of:

- Deductible temporary differences
- The carry forward of unused tax losses
- The carry forward of unused tax credits.

Temporary differences are differences between the carrying amount of an asset or liability in the statement of financial position and its tax base.

Temporary differences may be either:

- Taxable temporary differences, which are temporary differences that will result in taxable amounts in determining taxable profit (tax loss) of future periods when the carrying amount of the asset or liability is recovered or settled.
- Deductible temporary differences, which are temporary differences that will result in amounts that are deductible in determining taxable profit (tax loss) of future periods when the carrying amount of the asset or liability is recovered or settled.

A taxable temporary difference gives rise to a deferred tax liability. A deductible temporary difference gives rise to a deferred tax asset.

The tax base of an asset or liability is the amount attributed to that asset or liability for tax purposes. (IAS 12)

We need to discuss some of these definitions in more detail.

2.3 Tax base

We can expand on the definition given above by stating that the tax base of an asset is the amount that will be deductible for tax purposes against any taxable economic benefits that will flow to the entity when it recovers the carrying amount of the asset. Where those economic benefits are not taxable, the tax base of the asset is the same as its carrying amount.

Question 2: Tax base

State the tax base of each of the following assets:

(a) A machine cost $10 000. For tax purposes, depreciation of $3 000 has already been deducted in the current and prior periods and the remaining cost will be deductible in future periods, either as depreciation or through a deduction on disposal. Revenue generated by using the machine is taxable, any gain on disposal of the machine will be taxable and any loss on disposal will be deductible for tax purposes.

(b) Interest receivable has a carrying amount of $1 000. The related interest revenue will be taxed on a cash basis.

(c) Trade receivables have a carrying amount of $10 000. The related revenue has already been included in taxable profit (tax loss).

(d) A loan receivable has a carrying amount of $1m. The repayment of the loan will have no tax consequences.

(The answer is at the end of the chapter)

In the case of a liability, the tax base will be its carrying amount, less any amount that will be deducted for tax purposes in relation to the liability in future periods. For revenue received in advance, the tax base of the resulting liability is its carrying amount, less any amount of the revenue that will not be taxable in future periods.
Question 3: Tax base

State the tax base of each of the following liabilities.

(a) Current liabilities include accrued expenses with a carrying amount of $1,000. The related expense will be deducted for tax purposes on a cash basis.

(b) Current liabilities include interest revenue received in advance, with a carrying amount of $10,000. The related interest revenue was taxed on a cash basis.

(c) Current liabilities include accrued expenses with a carrying amount of $2,000. The related expense has already been deducted for tax purposes.

(d) Current liabilities include accrued fines and penalties with a carrying amount of $100. Fines and penalties are not deductible for tax purposes.

(e) A loan payable has a carrying amount of $1m. The repayment of the loan will have no tax consequences.

(The answer is at the end of the chapter)

IAS 12 gives the following examples of circumstances in which the carrying amount of an asset or liability will be equal to its tax base.

(a) Accrued expenses which have already been deducted in determining an entity's current tax liability for the current or earlier periods.

(b) A loan payable is measured at the amount originally received and this amount is the same as the amount repayable on final maturity of the loan.

(c) Accrued expenses which will never be deductible for tax purposes.

(d) Accrued income which will never be taxable.

2.4 Temporary differences

You may have found the definition of temporary differences somewhat confusing. Remember that accounting profits form the basis for computing taxable profits, on which the tax liability for the year is calculated; however, accounting profits and taxable profits are different. There are two reasons for the differences:

(a) Permanent differences. These occur when certain items of revenue or expense are excluded from the computation of taxable profits (for example, client entertainment expenses may not be allowable for tax purposes).

(b) Temporary differences. These occur when items of revenue or expense are included in both accounting profits and taxable profits, but not for the same accounting period. For example, an expense which is allowable as a deduction in arriving at taxable profits for 20X7 might not be included in the financial accounts until 20X8 or later.

In the long run, the total taxable profits and total accounting profits will be the same (except for permanent differences) so that timing differences originate in one period and are capable of reversal in one or more subsequent periods. Deferred tax is the tax attributable to temporary differences.

Temporary differences may be taxable or deductible. Taxable temporary differences are considered in Section 3 of this chapter and deductible temporary differences in Section 4.

2.5 Section summary

• Deferred tax is an accounting device. It does not represent tax payable to the tax authorities.
• The tax base of an asset or liability is the value of that asset or liability for tax purposes.
• You should understand the difference between permanent and temporary differences.
• Deferred tax is the tax attributable to temporary differences.
3 Taxable temporary differences

Section overview
- A taxable temporary difference results in a deferred tax liability.

3.1 Calculation of a taxable temporary difference and associated liability

A taxable temporary difference arises where the carrying amount of an asset exceeds its tax base, or the carrying amount of a liability is less than its tax base and is calculated as the difference between the carrying amount and the tax base.

The resultant deferred tax liability is calculated by applying the relevant tax rate to the taxable temporary difference.

3.2 Examples of taxable temporary differences

Common transactions which result in taxable temporary differences, including the following:

(a) **Interest revenue** received in arrears and included in accounting profit on the basis of time apportionment. It is included in taxable profit, however, on a cash basis.

(b) **Depreciation** of an asset is accelerated for tax purposes. When new assets are purchased, allowances may be available against taxable profits which exceed the amount of depreciation chargeable on the assets in the financial accounts for the year of purchase.

(c) **Development costs** which have been capitalised will be amortised through profit or loss, but they were deducted in full from taxable profit in the period in which they were incurred.

(d) **Prepaid expenses** have already been deducted on a cash basis in determining the taxable profit of the current or previous periods.

Exam comments

For the purposes of the exam, ensure you understand taxable temporary differences relating to non-current assets, sometimes referred to as accelerated capital allowances.

**Example: Taxable temporary differences**

A company purchased an asset costing $1 500. At the end of 20X8 the carrying amount is $1 000. The cumulative depreciation for tax purposes (capital allowances) is $900 and the current tax rate is 25%.

**Required**

Calculate the deferred tax liability for the asset.

**Solution**

First, what is the tax base of the asset? It is $1 500 – $900 = $600.

The carrying amount is given as $1 000.

Therefore, the taxable temporary difference is $400 and a deferred tax liability is calculated as $400 × 25% = $100.
The rationale behind this is as follows: in order to recover the carrying amount of $1 000, the entity must earn taxable income of $1 000, but it will only be able to deduct $600 as a taxable expense. The entity must therefore pay income tax of $400 \times 25% = $100 when the carrying amount of the asset is recovered.

3.3 Revalued assets

Under IAS 16 assets may be revalued. IAS 16 requires that the revaluation is recognised in other comprehensive income rather than profit. Therefore, the tax base of the asset remains unchanged.

The carrying amount will, however, increase to reflect the revalued amount. Therefore, on a revaluation the taxable temporary difference relating to the asset will increase and there is a deferred tax effect.

The additional deferred tax liability as at the date of the revaluation is calculated as:

Revaluation surplus \times \text{tax rate}

**Question 4: Current and deferred tax**

Jonquil Co buys equipment for $50 000 and depreciates it on a straight line basis over its expected useful life of five years. The equipment has no residual value. For tax purposes, the equipment is depreciated at 25% per annum on a straight line basis. Tax losses may be carried back against taxable profit of the previous five years. In year 20X0, the entity's taxable profit was $25 000. The tax rate is 40%.

**Required**

Assuming nil profits/losses after depreciation in years 20X1 to 20X5 show the current and deferred tax impact in years 20X1 to 20X5 of the acquisition of the equipment.

(The answer is at the end of the chapter)

4 Deductible temporary differences

**LOs**

- 2.4
- 3.3

**Section overview**

- A deductible temporary difference results in a deferred tax asset.

**4.1 Calculation of a deductible temporary difference and associated asset**

A deductible temporary difference arises where the **tax base of an asset exceeds its carrying amount** or the **tax base of a liability is less than its carrying amount**, and is calculated as the difference between the tax base and the carrying amount.

The resultant deferred tax asset is calculated by applying the relevant tax rate to the deductible temporary difference.

The deferred tax asset must also satisfy the **recognition criteria** given in IAS 12. This is that a deferred tax asset should be recognised for all deductible temporary differences to the extent that it is **probable that taxable profit will be available** against which it can be utilised.
4.2 Examples of deductible temporary differences
Common transactions which result in deductible temporary differences, include the following:

(a) **Retirement benefit costs** (pension costs) are deducted from accounting profit as service is provided by the employee. They are not deducted in determining taxable profit until the entity pays either retirement benefits or contributions to a fund. (This may also apply to similar expenses.)

(b) The **NRV** of inventory, or the **recoverable amount** of an item of property, plant and equipment falls and the carrying amount is therefore **reduced**, but that reduction is ignored for tax purposes until the asset is sold.

(c) **Research costs** (or organisation/other start-up costs) are recognised as an expense for accounting purposes, but are not deductible against taxable profits until a later period.

(d) Income is **deferred** in the statement of financial position, but has already been included in taxable profit in current/prior periods.

(e) **Tax losses** arise which are carried forward against future taxable profits.

---

**Exam comments**

For the purposes of the exam, ensure you understand deductible temporary differences relating to tax losses and expenses recognised in profit or loss before they are paid.

---

**Example: Deductible temporary differences**

Pargatha Co recognises a liability of $10,000 for accrued product warranty costs on 31 December 20X7. These product warranty costs will not be deductible for tax purposes until the entity pays claims. The tax rate is 25%.

**Required**

State the deferred tax implications of this situation.

**Solution**

The tax base of the liability is nil (carrying amount of $10,000 less the amount that will be deductible for tax purposes in respect of the liability in future periods).

The carrying amount of the liability is ($10,000).

Therefore, there is a deductible temporary difference of $10,000 and a deferred tax asset of $2,500 arises ($10,000 x 25%) **provided that** it is probable that the entity will earn sufficient taxable profits in future periods to benefit from a reduction in tax payments.

The rationale behind this is as follows: when the liability is settled for its carrying amount, the entity's future taxable profit will be reduced by $10,000 and so its future tax payments by $10,000 x 25% = $2,500.

---

4.3 Taxable profits in future periods

When can we be sure that sufficient taxable profit will be available against which a deductible temporary difference can be utilised? IAS 12 states that this will be assumed when sufficient **taxable temporary differences** exist which relate to the same taxation authority and the same taxable entity. These should be expected to reverse:

(a) In the same period as the expected reversal of the deductible temporary difference, or

(b) In periods into which a tax loss arising from the deferred tax asset can be carried back or forward.

In these circumstances the deferred tax asset is **recognised** in the period in which the deductible temporary differences arise.
4.4 Unused tax losses and unused tax credits

An entity may have unused tax losses (i.e. which it can offset against taxable profits) at the end of a period. These losses are not recognised in the statement of financial position and so have nil carrying amount. Their tax base is the amount that can be deducted from taxable profits in the future i.e. the amount of the loss. Therefore, a deferred tax asset potentially arises, although IAS 12 states that it may only be recognised to the extent that it is probable that future taxable profit will be available against which the unused tax losses/credits can be utilised.

The amount of the deferred tax asset is calculated as:

Recoverable tax losses c/f \times \text{tax rate}

5 Measurement and recognition of deferred tax

Section overview

- IAS 12 requires deferred tax assets and liabilities to be measured at the tax rates expected to apply when the asset is realised or the liability settled.

5.1 Changes in tax rates

Where the corporate rate of income tax fluctuates from one year to another, a problem arises in respect of the amount of deferred tax to be credited (debited) to the statement of profit or loss and other comprehensive income in later years.

IAS 12 requires deferred tax assets and liabilities to be measured at the tax rates expected to apply in the period when the asset is realised or liability settled, based on tax rates and laws enacted (or substantively enacted) at the end of the reporting period. In other words, IAS 12 requires the liability method to be used.

5.2 Discounting

Discounting is used to allow for the effect of the time value of money.

IAS 12 states that deferred tax assets and liabilities should not be discounted because of the complexities and difficulties involved. Discounting is applied to other non-current liabilities such as provisions and deferred payments.

5.3 Carrying amount of deferred tax assets

The carrying amount of deferred tax assets should be reviewed at the end of each reporting period and reduced where appropriate (insufficient future taxable profits). Such a reduction may be reversed in future years.

5.4 Recognition

As with current tax, deferred tax should normally be recognised as income or an expense and included in the net profit or loss for the period. The exception is where the tax arises from a transaction or event which is recognised (in the same or a different period) as other comprehensive income or directly in equity.

Deferred tax (and current tax) should be charged or credited to other comprehensive income or directly to equity if the tax relates to items also charged or credited to other comprehensive income or directly to equity (in the same or a different period).
Examples of IFRSs which allow certain items to be credited or charged to other comprehensive income or directly to equity include:

(a) **Revaluations** of property, plant and equipment (IAS 16) – credited to other comprehensive income, and

(b) The effect of a **change in accounting policy** (applied retrospectively) or correction of a **material error** (IAS 8) – credited or charged directly to equity.

5.4.1 **Example: Recognition**

Z Co owns a property which has a carrying amount at the beginning of 20X9 of $1,500,000. At the year end it has revalued the property to $1,800,000. The tax rate is 30%. How will this be shown in the financial statements?

**Solution**

**STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME (EXTRACT)** $’000

<table>
<thead>
<tr>
<th></th>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit for the year</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Other comprehensive income:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains on property revaluation</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Income tax relating to components of other comprehensive income (300 x 30%)</td>
<td></td>
<td>(90)</td>
</tr>
<tr>
<td>Other comprehensive income for the year net of tax</td>
<td></td>
<td>210</td>
</tr>
</tbody>
</table>

The amounts will be posted as follows:

<table>
<thead>
<tr>
<th></th>
<th>$’000</th>
<th>$’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Deferred tax</td>
<td></td>
<td>90</td>
</tr>
<tr>
<td>Revaluation surplus</td>
<td></td>
<td>210</td>
</tr>
</tbody>
</table>

5.5 **Why do we recognise deferred tax?**

(a) Adjustments for deferred tax are made in accordance with the **accruals concept** and in accordance with the definition of a **liability** in the Conceptual Framework, i.e. a past event has given rise to an obligation in the form of increased taxation which will be payable in the future. The amount can be reliably estimated. A deferred tax asset similarly meets the definition of an **asset**.

(b) If the future tax consequences of transactions are not recognised, profit can be overstated, leading to overpayment of dividends and distortion of share price and EPS.

6 **Taxation in company accounts**

**Section overview**

- In the statement of financial position the liability for tax payable is the tax charge for the year. In the statement of profit or loss and other comprehensive income the tax charge for the year is adjusted for transfers to or from deferred tax and for prior year under- or over-provisions.

We have discussed the 'elements' of taxation in company accounts. There are two aspects to be learned:

(a) Taxation on profits in the statement of profit or loss and other comprehensive income.

(b) Taxation payments due, shown as a liability in the statement of financial position.
6.1 Taxation in the statement of profit or loss and other comprehensive income

The tax on profit from ordinary activities is calculated by aggregating:

(a) Income tax on taxable profits
(b) Transfers to or from deferred taxation
(c) Any adjustments (under-provision or over-provision) for current tax on profits of previous years

Question 5: Tax payable

In the accounting year to 31 December 20X3, Neil Down Co made an operating profit before taxation of $110 000.

Income tax on the operating profit has been estimated at $45 000. In the previous year (20X2) income tax on 20X2 profits had been estimated at $38 000 but it was subsequently agreed at $40 500.

A transfer to the credit of the deferred taxation account of $16 000 will be made in 20X3.

Required

(a) Calculate the tax on profits for 20X3 for disclosure in the accounts.
(b) Calculate the amount of tax payable.

(The answer is at the end of the chapter)

6.2 Taxation in the statement of financial position

It should already be apparent from the previous examples that the income tax charge in the statement of profit or loss and other comprehensive income will not be the same as income tax liabilities in the statement of financial position.

In the statement of financial position, there are several items that we might expect to find:

(a) Income tax may be payable in respect of (say) interest payments paid in the last accounting return period of the year, or accrued.

(b) If no tax is payable (or very little), then there might be an income tax recoverable asset disclosed in current assets (income tax is normally recovered by offset against the tax liability for the year).

(c) There will usually be a liability for tax, possibly including the amounts due in respect of previous years, but not yet paid.

(d) We may also find a liability on the deferred taxation account. Deferred taxation is shown under ‘non-current liabilities’ in the statement of financial position.

Question 6: Tax charge

For the year ended 31 July 20X4 Norman Kronkest Co made taxable trading profits of $1 200 000 on which income tax is payable at 30%.

(a) An amount of $20 000 will be credited to the deferred taxation account. The deferred tax liability brought forward at 1 August 20X3 was $100 000.

(b) The estimated tax on profits for the year ended 31 July 20X3 was $80 000, but tax has now been agreed at $84 000 and fully paid.

(c) Tax on profits for the year to 31 July 20X4 is payable on 1 May 20X5.

(d) In the year to 31 July 20X4 the company made a capital gain of $60 000 on the sale of some property. This gain is taxable at a rate of 30%.
Required

(a) Calculate the tax charge for the year to 31 July 20X4.
(b) Calculate the tax liabilities in the statement of financial position of Norman Kronkest as at 31 July 20X4.

(The answer is at the end of the chapter)

6.3 Presentation of tax expense

The tax expense or income related to the profit or loss for the period should be disclosed in the statement of profit or loss and other comprehensive income.
Key chapter points

- Current tax is the amount payable to the tax authorities in relation to the trading activities of the period.
- Unpaid tax in respect of the current period is charged to profit or loss and recognised as a liability.
- Where the liability is less than the tax later paid, the balance remaining on the tax liability account is termed an under-provision. The following year’s tax charge is increased by this amount.
- Where the liability is more than the tax later paid, the balance remaining on the tax liability account is an over-provision and the following year’s tax charge is decreased by this amount.
- Deferred tax is an accounting measure, used to match the tax effects of transactions with their accounting impact and thereby produce less distorted results.
- Deferred tax adjusts for the effects of temporary differences arising because the tax treatment of an item differs from its accounting treatment.
- A temporary difference is calculated by comparing the carrying amount of an asset or liability with its 'tax base'.
- The 'tax base' of an asset or liability is the amount attributed to that asset or liability for tax purposes.
- If the carrying amount of an asset is greater than its tax base, this is a taxable temporary difference and results in a deferred tax liability.
- If the tax base of an asset is greater than its carrying amount, this is a deductible temporary difference and results in a deferred tax asset.
- If the carrying amount of a liability is greater than its tax base, this is a deductible temporary difference and results in a deferred tax asset.
- If the tax base of a liability is greater than its carrying amount, this is a taxable temporary difference and results in a deferred tax liability.
- Deferred tax assets and liabilities are measured at the tax rates expected to apply in the period when the asset is realised or liability settled, based on tax rates and laws enacted (or substantively enacted) at the end of the reporting period.
- Deferred tax should normally be recognised as income or an expense and included in the net profit or loss for the period.
- Deferred tax (and current tax) should be charged or credited to other comprehensive income or directly to equity if the tax relates to items also charged or credited to other comprehensive income or directly to equity (in the same or a different period).
- The tax on profit on ordinary activities is calculated by aggregating:
  (a) Income tax on taxable profits.
  (b) Transfers to or from deferred taxation.
  (c) Any adjustments (under provision or overprovision) of current tax on profits of previous years.
Quick revision questions

1. Leo Co is liable to corporate income tax at a rate of 30%. The following information is relevant:

   **Y/e 30 November 20X7**
   - Profit before tax: $490 000
   - Taxable profits: $502 000
   - Tax paid in 20X8 respect of year: $149 000

   **Y/e 30 November 20X8**
   - Profit before tax: $523 000
   - Taxable profits: $582 000
   - Tax paid in 20X9 respect of year: $170 000

   What is the tax charge in the statement of profit or loss and other comprehensive income for the year ended 30 November 20X8?
   - A $158 900
   - B $170 000
   - C $173 000
   - D $174 600

2. At 30 September 20X2 the statement of financial position of CBN Co included a liability for deferred tax of $128 500. At 30 September 20X3 the non-current assets had a carrying amount of $2 650 000 and a tax written down value of $1 872 000. The tax rate is 20%.

   What is the balance on the deferred tax account at 30 September 20X3?
   - A $27 100
   - B $128 500
   - C $155 600
   - D $778 000

3. A company in its first year of trading has significantly higher capital allowances (tax depreciation) than the accounting depreciation charged to profit or loss on the same assets. What would be the effect of recognising a liability for deferred taxation in respect of these assets?

<table>
<thead>
<tr>
<th>Profit after Tax</th>
<th>Net assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Decrease</td>
<td>Increase</td>
</tr>
<tr>
<td>B Decrease</td>
<td>Decrease</td>
</tr>
<tr>
<td>C Increase</td>
<td>Decrease</td>
</tr>
<tr>
<td>D Increase</td>
<td>Increase</td>
</tr>
</tbody>
</table>

4. At 30 November 20X4 the carrying amount of the non-current assets of Reynard Co was $3 570 000 and the tax written down value was $2 450 000. The liability for deferred tax brought forward was $250 000.

   The tax rate is 22%.

   What should be reported in the statement of profit or loss and other comprehensive income in respect of deferred tax?
   - A A charge of $3 600
   - B A charge of $246 400
   - C A credit of $3 600
   - D A credit of $246 400
5 At 30 April 20X6, the carrying amount of the non-current assets of Bahno Co was $80,000 greater than the tax written down value, and the balance brought forward on the deferred tax account was $24,800. The company accountant calculated that the income tax charge on the reported profit for the year to 30 April 20X6 would be $53,960, based on the tax rate of 24%.

What is the total charge for taxation in the statement of profit or loss and other comprehensive income for the year to 30 April 20X6?

A $48,360  
B $59,560  
C $73,160  
D $78,760

6 Which of the following statements about deferred taxation is correct?

A Deferred tax is an amount of tax certain to be payable at a future date.  
B Deferred tax liabilities are shown in the statement of financial position of a company as part of the taxation current liability.  
C Deferred taxation is an accounting item used to apply the accruals concept to taxation charges in the accounts.  
D Deferred taxation is an accounting item used to apply the consistency concept to taxation charges in the accounts.

7 Kelt Co makes a tax-adjusted loss in its 20X8 financial year of $320,000. $120,000 of these losses are carried back to relieve against the profits of 20X7 and $15,000 are used in the current year to relieve other income. The remainder are carried forward. In 20X9 Kelt Co is expected to make significant profits as a result of the launch of a new product. Kelt Co’s tax rate is 25%.

What is the deferred tax implication, if any, in 20X8 of the loss made?

A A deferred tax asset of $46,250  
B A deferred tax asset of $50,000  
C A deferred tax liability of $46,250  
D A deferred tax liability of $50,000

8 Which of the following statements are true?

I The tax base of an asset is the future amount which is deductible from profits.  
II A deferred tax liability is the result of a deductible temporary difference.  
III A revaluation will result in the recognition of a deferred tax movement in profit or loss.  
IV Where the carrying amount of an asset exceeds its tax base there will be a taxable temporary difference.

A I and III only  
B I and IV only  
C II and IV only  
D I, II, III and IV

9 Parker Co has non-current assets with an original cost of $580,000. As at 31 January 20X9, accumulated depreciation provided on these assets amounts to $80,000 and tax allowances given amount to $130,000. On this date, Parker recognised a $100,000 revaluation surplus in respect of a factory included within the above. The original cost of the factory was $190,000, accumulated depreciation to date was $20,000 and tax allowances $30,000. Parker’s tax rate is 20% and the deferred tax liability brought forward in respect of accelerated capital allowances was $9,000.

How are movements in deferred tax recognised in the statement of profit or loss and other comprehensive income?

\[
\begin{array}{ll}
\text{In profit or loss} & \text{As other comprehensive income} \\
A & $1,000 charge & $20,000 charge \\
B & $1,000 credit & $22,000 charge \\
C & $8,000 credit & $22,000 charge \\
D & $10,000 charge & $20,000 charge \\
\end{array}
\]
Extracts from the financial statements of Rasputin Co are as follows:

- Tax charge to profits: $47,500
- Company income tax liability for the year: $56,000
- Deferred tax liability at start of year: $34,000
- Deferred tax liability at end of year: $28,000

Rasputin has always paid its tax due on time. What is the under- or over-provision relating to the previous year?

A. $2,500 over-provision
B. $2,500 under-provision
C. $14,500 over-provision
D. $14,500 under-provision
## Answers to quick revision questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 C</td>
<td>Tax charge (30% × $582 000)</td>
<td>$174 600</td>
</tr>
<tr>
<td></td>
<td>Over-provision from X7 ($502 000 × 30%) – 149 000</td>
<td>(1 600)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$173 000</td>
</tr>
<tr>
<td>2 C</td>
<td>Answer A is the deferred tax part of the year’s tax charge (the amount by which the liability is increased). Answer B is the opening balance. Answer D is the difference between the carrying amount and the tax WDV. Temporary difference ((2 650 000 – 1 872 000) × 20%) = $155 600</td>
<td></td>
</tr>
<tr>
<td>3 B</td>
<td>The creation of a deferred tax liability forms part of the tax charge, so reducing profits for the year.</td>
<td></td>
</tr>
<tr>
<td>4 C</td>
<td>A carrying amount of $3 570 000 less tax WDV of $2 450 000 = $1 120 000 and at 22% a liability of $246 400 is required. There is already a liability of $250 000 so a credit of $3 600 will be reported.</td>
<td></td>
</tr>
<tr>
<td>5 A</td>
<td>Current tax</td>
<td>$53 960</td>
</tr>
<tr>
<td></td>
<td>Deferred tax (see below)</td>
<td>($5 600)</td>
</tr>
<tr>
<td></td>
<td>Deferred tax – liability required</td>
<td>= $80 000 × 24%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>= 19 200</td>
</tr>
<tr>
<td></td>
<td>Opening balance on deferred tax</td>
<td>= 24 800</td>
</tr>
<tr>
<td></td>
<td>Decrease</td>
<td>= 5 600</td>
</tr>
<tr>
<td>6 C</td>
<td>Deferred tax is recorded as a non-current liability; it does not represent an amount payable, but is an accounting adjustment made in order to ‘smooth’ the tax charge so that the tax charged in a period is in line with the profits made in that period.</td>
<td></td>
</tr>
<tr>
<td>7 A</td>
<td>A deferred tax asset arises in respect of the losses carried forward which are expected to be utilised against future profits i.e. $185 000 ($320 000 – $120 000 – $15 000). The asset is calculated by applying the tax rate of 25%.</td>
<td></td>
</tr>
<tr>
<td>8 B</td>
<td>A deferred tax liability is the result of a taxable temporary difference. Deferred tax arising on a revaluation is recognised in other comprehensive income.</td>
<td></td>
</tr>
<tr>
<td>9 A</td>
<td>Deferred tax on the accelerated capital allowances (recognised in profit or loss)</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>Carrying amount ($580 000 – 80 000)</td>
<td>500 000</td>
</tr>
<tr>
<td></td>
<td>Tax base ($580 000 – 130 000)</td>
<td>450 000</td>
</tr>
<tr>
<td></td>
<td>Temp difference</td>
<td>50 000</td>
</tr>
<tr>
<td></td>
<td>Deferred tax liability c/f (20% × $50 000)</td>
<td>10 000</td>
</tr>
<tr>
<td></td>
<td>Deferred tax liability b/f</td>
<td>9 000</td>
</tr>
<tr>
<td></td>
<td>Increase in liability/charge to profits</td>
<td>= 1 000</td>
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<td></td>
<td>Deferred tax on revaluation (recognised as OCI)</td>
<td>$100 000 × 20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 000</td>
</tr>
<tr>
<td>10 A</td>
<td>Tax charge for current year = liability</td>
<td>$56 000</td>
</tr>
<tr>
<td></td>
<td>Decrease in deferred tax liability</td>
<td>(6 000)</td>
</tr>
<tr>
<td></td>
<td>Over provision (bal figure)</td>
<td>(2 500)</td>
</tr>
<tr>
<td></td>
<td>Tax charge to profits</td>
<td>= 47 500</td>
</tr>
</tbody>
</table>
Answers to chapter questions

1 (a)  
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax due on 20X8 profits ($120 000 × 30%)</td>
<td>$36 000</td>
</tr>
<tr>
<td>Underpayment for 20X7</td>
<td>$5 000</td>
</tr>
<tr>
<td>Tax expense</td>
<td>$41 000</td>
</tr>
</tbody>
</table>

(b)  
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax due on 20X8 profits (as above)</td>
<td>$36 000</td>
</tr>
<tr>
<td>Overpayment for 20X7</td>
<td>($5 000)</td>
</tr>
<tr>
<td>Tax expense</td>
<td>$31 000</td>
</tr>
</tbody>
</table>

2 (a) The tax base of the machine is $7 000.
(b) The tax base of the interest receivable is nil.
(c) The tax base of the trade receivables is $10 000.
(d) The tax base of the loan is $1m.

3 (a) The tax base of the accrued expenses is nil.
(b) The tax base of the interest received in advance is nil.
(c) The tax base of the accrued expenses is $2 000.
(d) The tax base of the accrued fines and penalties is $100.
(e) The tax base of the loan is $1m.

4 Jonquil Co will recover the carrying amount of the equipment by using it to manufacture goods for resale. Therefore, the entity's current tax computation is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>20X1</th>
<th>20X2</th>
<th>20X3</th>
<th>20X4</th>
<th>20X5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxable income*</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
</tr>
<tr>
<td>Depreciation for tax purposes</td>
<td>$12 500</td>
<td>$12 500</td>
<td>$12 500</td>
<td>$12 500</td>
<td>$0</td>
</tr>
<tr>
<td>Taxable profit (tax loss)</td>
<td>($2 500)</td>
<td>($2 500)</td>
<td>($2 500)</td>
<td>($2 500)</td>
<td>$10 000</td>
</tr>
<tr>
<td>Current tax expense (income) at 40%</td>
<td>($1 000)</td>
<td>($1 000)</td>
<td>($1 000)</td>
<td>($1 000)</td>
<td>$4 000</td>
</tr>
</tbody>
</table>

* i.e. nil profit plus $50 000 ÷ 5 depreciation add-back.

The entity recognises a current tax asset at the end of years 20X1 to 20X4 because it recovers the benefit of the tax loss against the taxable profit of year 20X5.

The temporary differences associated with the equipment and the resulting deferred tax asset and liability and deferred tax expense and income are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>20X1</th>
<th>20X2</th>
<th>20X3</th>
<th>20X4</th>
<th>20X5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying amount</td>
<td>$40 000</td>
<td>$30 000</td>
<td>$20 000</td>
<td>$10 000</td>
<td>$0</td>
</tr>
<tr>
<td>Tax base</td>
<td>$37 500</td>
<td>$25 000</td>
<td>$12 500</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Taxable temporary difference</td>
<td>$2 500</td>
<td>$5 000</td>
<td>$7 500</td>
<td>$10 000</td>
<td>$0</td>
</tr>
<tr>
<td>Opening deferred tax liability</td>
<td>$0</td>
<td>$1 000</td>
<td>$2 000</td>
<td>$3 000</td>
<td>$4 000</td>
</tr>
<tr>
<td>Deferred tax exp (income): bal fig.</td>
<td>$1 000</td>
<td>$1 000</td>
<td>$1 000</td>
<td>$1 000</td>
<td>($4 000)</td>
</tr>
<tr>
<td>Closing deferred tax liability @ 40%</td>
<td>$1 000</td>
<td>$2 000</td>
<td>$3 000</td>
<td>$4 000</td>
<td>$0</td>
</tr>
</tbody>
</table>

The entity recognises the deferred tax liability in years 20X1 to 20X4 because the reversal of the taxable temporary difference will create taxable income in subsequent years.
The entity’s statement of profit or loss is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>20X1</th>
<th>20X2</th>
<th>20X3</th>
<th>20X4</th>
<th>20X5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
<td>$10 000</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Current tax expense (income)</td>
<td>$(1 000)</td>
<td>$(1 000)</td>
<td>$(1 000)</td>
<td>$(1 000)</td>
<td>$4 000</td>
</tr>
<tr>
<td>Deferred tax expense (income)</td>
<td>$1 000</td>
<td>$1 000</td>
<td>$1 000</td>
<td>$1 000</td>
<td>$(4 000)</td>
</tr>
<tr>
<td>Total tax expense (income)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Net profit for the period</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(a) Income tax on profits (liability in the statement of FP)

Deferred taxation

Under-provision of tax in previous year $(40 500 – 38 000)

Tax on profits for 20X3 (profit or loss)

(b) Tax payable on 20X3 profits (liability)

6 (a) Tax expense for the year

(i) Tax on trading profits (30% of $1 200 000)

Tax on capital gain

Deferred taxation

Under-provision of taxation in previous years $(84 000 – 80 000)

Tax expense on profit for the period

(ii) Note. The statement of profit or loss and other comprehensive income will show the following:

Profit before tax (1 200 000 + 60 000)

Income tax expense

Profit for the year

(b) Deferred taxation

Balance brought forward

Transferred from profit or loss

Deferred taxation in the statement of financial position

The tax liability is as follows:

Payable on 1 May 20X5

Tax on profits (30% of $1 200 000)

Tax on capital gain (30% of $60 000)

Due on 1 May 20X5

Summary

Current liabilities

Tax payable on 1 May 20X5

Non-current liabilities

Deferred taxation

Note. It may be helpful to show the journal entries for these items.

<table>
<thead>
<tr>
<th>DEBIT</th>
<th>CREDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax expense (profit or loss)</td>
<td>$402 000</td>
</tr>
<tr>
<td>Tax payable</td>
<td>$382 000</td>
</tr>
<tr>
<td>Deferred tax</td>
<td>$20 000</td>
</tr>
</tbody>
</table>

* This account will show a debit balance of $4 000 until the under-provision is recorded, since payment has already been made: (360 000 + 18 000 + 4 000). The closing balance will therefore be $378 000.
Chapter 9

Accounting for foreign currency

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting for foreign currency</td>
<td>LO8.1</td>
</tr>
<tr>
<td>Explain and account for foreign currency transactions at transaction date and</td>
<td></td>
</tr>
<tr>
<td>subsequent dates</td>
<td>LO8.2</td>
</tr>
<tr>
<td>Apply the requirements of IAS 21 to record foreign currency denominated transactions</td>
<td></td>
</tr>
<tr>
<td>and exchange rate differences that arise on foreign currency monetary items</td>
<td></td>
</tr>
<tr>
<td>Explain and apply the IAS 21 method for translating financial statements from a</td>
<td></td>
</tr>
<tr>
<td>functional currency to a presentation currency</td>
<td>LO8.3</td>
</tr>
<tr>
<td>Outline the disclosure requirements of IAS 21</td>
<td>LO8.4</td>
</tr>
</tbody>
</table>

**Topic list**

1. Foreign currency
2. Foreign currency transactions
3. Foreign currency financial statements
4. Disclosure requirements
Introduction

Many companies buy from overseas suppliers or sell to overseas customers. These transactions are often denominated in a foreign currency and where this is the case, the amount must be converted into local currency before it is recorded in the accounts.

Similarly, some companies are members of a group but operate in a different country from other group companies and prepare their accounts in a different currency. Where this is the case, their accounts must be translated before they can be consolidated. (Consolidation is the process of preparing financial statements for a group of companies as a single economic entity. Consolidation is covered in Chapters 10 to 13 of this Study Manual.)

Note: This chapter concentrates on the profit or loss section of the statement of profit or loss and other comprehensive income rather than other comprehensive income. The term 'statement of profit or loss' is used throughout for ease.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What is the functional currency of an entity? (Section 1.1)
2. What is the presentation currency of an entity? (Section 1.1)
3. At what rate should a foreign currency transaction be translated before it is recorded in the accounts? (Section 2.1)
4. How does an exchange difference relating to a foreign currency transaction arise and where should it be recorded? (Section 2)
5. What is a monetary item? (Section 2.3.1)
6. At what rate are items in a statement of financial position translated from functional to presentation currency? (Section 3.2)
7. At what rate are items in a statement of profit or loss translated from functional to presentation currency? (Section 3.2)
8. Of what is the exchange difference arising on the translation of financial statements into presentation currency made up? (Section 3.3)
1 Foreign currency

Section overview
- IAS 21 deals with converting individual transactions into local currency before recording them. It also deals with translating a foreign subsidiary’s accounts before consolidating them.

IAS 21 The effects of changes in foreign exchange rates recognises that there are two main instances in which foreign currency amounts must be translated into another currency:

1. If a company trades overseas, it will buy or sell assets in foreign currencies. For example, an Indian company might buy materials from Canada, and pay for them in US dollars, and then sell its finished goods in Germany, receiving payment in Euro, or perhaps in some other currency. These transactions must be translated into the reporting currency of the Indian company before they can be recorded in its financial statements.

2. A company might have a subsidiary abroad (i.e. a foreign entity that it owns), and the subsidiary will trade in its own local currency. The subsidiary will keep books of account and prepare its annual accounts in its own currency. At the year end, the parent company must ‘consolidate’ the results of the overseas subsidiary into its group accounts. Before this can happen, the financial statements of the subsidiary must be translated into the currency in which the group accounts are prepared.

Before we consider each of these situations in turn, we must consider some important definitions provided by IAS 21.

1.1 Definitions

These are some of the definitions given by IAS 21.

Definitions

Foreign currency. A currency other than the functional currency of the entity.

Functional currency. The currency of the primary economic environment in which the entity operates.

Presentation currency. The currency in which the financial statements are presented.

Exchange rate. The ratio of exchange for two currencies.

Exchange difference. The difference resulting from translating a given number of units of one currency into another currency at different exchange rates.

Closing rate. The spot exchange rate at the year end date.

Spot exchange rate. The exchange rate for immediate delivery. (IAS 21)

Each entity – whether an individual company, a parent of a group, or an operation within a group (such as a subsidiary, associate or branch) – should determine its functional currency and measure its results and financial position in that currency.

For most individual companies the functional currency will be the currency of the country in which they are located and in which they carry out most of their transactions. Determining the functional currency is much more likely to be an issue where an entity operates as part of a group. IAS 21 contains detailed guidance on how to determine an entity’s functional currency and we will look at this in more detail in Section 3.

An entity can present its financial statements in any currency (or currencies) it chooses. IAS 21 deals with the situation in which financial statements are presented in a currency other than the functional currency. Again, this is unlikely to be an issue for most individual companies. Their presentation currency will normally be the same as their functional currency (the currency of the country in which they operate).
2 Foreign currency transactions

Section overview

- Foreign currency transactions must be translated into the reporting currency of an entity before they are recorded in the financial statements; monetary items remaining in the statement of financial position at the year end are re-translated using the closing rate.

2.1 Foreign currency transactions: initial recognition

IAS 21 requires that foreign currency transactions are translated using the exchange rate at the date of the transaction (the spot rate) before they are recorded in the financial statements.

An average rate for a period may be used if exchange rates do not fluctuate significantly.

2.1.1 Example: Initial recognition (1)

An Australian company with a 31 December year end buys a large consignment of goods from a supplier in Germany. The order is placed on 1 May and the agreed price is €124 250. At the time of delivery the rate of foreign exchange was €3.50 to $1. The Australian company would record the amount owed in its books as follows:

DEBIT Inventory \( \frac{124 250}{3.5} \) $35 500
CREDIT Payables $35 500

2.2 Settlement before the period end

Where a foreign currency amount payable or receivable is settled in the same period as that in which the transaction took place, an exchange difference will arise (assuming that the exchange rate has moved since the date of the transaction).

This is best explained by continuing the example above.

2.2.1 Example: Initial recognition (2)

When the Australian company comes to pay the supplier, it needs to obtain some foreign currency. By this time, however, the rate of exchange has altered to €3.55 to $1, and so the cost of raising €124 250 would be \( \frac{124 250}{3.55} \) $35 000. The company would need to spend only $35 000 to settle a debt for inventories ‘costing’ $35 500. As inventory is a non-monetary asset the value of the inventories is not amended in the company’s books of account. Instead we record a profit on conversion of $500.

DEBIT Payables $35 500
CREDIT Cash $35 000
CREDIT Profit on conversion (exchange difference) $500

The profit on conversion is recognised in profit or loss in the statement of profit or loss.

2.3 Settlement after the period end

2.3.1 At the period end

Where there is a foreign currency asset or liability in the statement of financial position at the year end, such as an unpaid amount payable, the balance may need to be re-translated using the closing (year end) exchange rate.

This is only the case for monetary assets and liabilities. Non-monetary assets and liabilities are not re-translated.
Definition

**Monetary items** are units of currency held, and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.

Therefore, the following rules apply at each subsequent year end:

(a) Report foreign currency monetary items (such as receivables and payables) using the **closing rate**.

(b) Report non-monetary items (e.g. non-current assets, inventories) that are carried at **historical cost** in a foreign currency using the **exchange rate at the date of the transaction** (historical rate).

(c) Report non-monetary items that are carried at **fair value** in a foreign currency using the exchange rate that existed **when the values were determined**.

Exchange differences arising on the re-translation of monetary items are recognised as part of the profit or loss for the year.

### 2.3.2 Subsequent settlement

When the monetary item is subsequently settled in the following period, an exchange difference will arise resulting from the movement in the exchange rate between the previous period end and the date of settlement.

#### Question 1: Entries

White Cliffs Co, whose year end is 31 December, buys some goods from Rinka SA of France on 30 September. The invoice value is €40,000 and is due for settlement in equal instalments on 30 November and 31 January. The exchange rate moved as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 September</td>
<td>1.60</td>
</tr>
<tr>
<td>30 November</td>
<td>1.80</td>
</tr>
<tr>
<td>31 December</td>
<td>1.90</td>
</tr>
<tr>
<td>31 January</td>
<td>1.85</td>
</tr>
</tbody>
</table>

**Required**

State the accounting entries in the books of White Cliffs Co.

(The answer is at the end of the chapter)

### 3 Foreign currency financial statements

#### Section overview

- An entity will operate its business and record transactions in its functional currency. Where the entity is part of a group, the parent must translate its financial statements into the group presentation currency prior to consolidation.

#### LO 8.3

A holding or parent company with foreign operations must translate the financial statements of those operations into its own reporting currency before they can be consolidated into the group accounts. There are two methods; the method used depends upon whether the foreign operation has the same functional currency as the parent.
3.1 Determining functional currency

IAS 21 states that an entity should consider the following factors in determining the functional currency of an entity:

(a) The currency that mainly influences sales prices for goods and services (often the currency in which prices are denominated and settled).

(b) The currency of the country whose competitive forces and regulations mainly determine the sales prices of its goods and services.

(c) The currency that mainly influences labour, material and other costs of providing goods or services (often the currency in which prices are denominated and settled).

Sometimes the functional currency of an entity is not immediately obvious. Management must then exercise judgment and may also need to consider:

(a) The currency in which funds from financing activities (raising loans and issuing equity) are generated.

(b) The currency in which receipts from operating activities are usually retained.

Where a parent has a foreign operation a number of factors are considered:

(a) Whether the activities of the foreign operation are carried out as an extension of the parent, rather than being carried out with a significant degree of autonomy.

(b) Whether transactions with the parent are a high or a low proportion of the foreign operation’s activities.

(c) Whether cash flows from the activities of the foreign operation directly affect the cash flows of the parent and are readily available for remittance to it.

(d) Whether the activities of the foreign operation are financed from its own cash flows or by borrowing from the parent.

To sum up: in order to determine the functional currency of a foreign operation it is necessary to consider the relationship between the foreign operation and its parent:

- If the foreign operation carries out its business as though it were an extension of the parent’s operations, it is likely to have the same functional currency as the parent.

- If the foreign operation is semi-autonomous it is likely to have a different functional currency from the parent.

The translation method used has to reflect the economic reality of the relationship between the reporting entity (the parent) and the foreign operation.

3.1.1 Same functional currency as the reporting entity

In this situation, the foreign operation normally carries on its business as though it were an extension of the reporting entity’s operations. For example, it may only sell goods imported from, and remit the proceeds directly to, the reporting entity.

Any movement in the exchange rate between the reporting currency and the foreign operation’s currency will have an immediate impact on the reporting entity’s cash flows from the foreign operations. In other words, changes in the exchange rate affect the individual monetary items held by the foreign operation, not the reporting entity’s net investment in that operation.

Where a foreign operation has the same functional currency as its parent, it will almost certainly keep its accounting records in its functional currency, even if this is not the same as the local currency. This means that the financial statements of the foreign operation do not need to be translated.

In theory, the foreign operation could keep its accounting records and prepare individual financial statements in the local currency. In this situation, the foreign operation’s transactions should be translated as if they had been those of the parent.
3.1.2 Different functional currency from the reporting entity

In this situation, although the reporting entity may be able to exercise control, the foreign operation normally operates in a semi-autonomous way. It accumulates cash and other monetary items, generates income and incurs expenses, and may also arrange borrowings, all in its own local currency.

A change in the exchange rate will produce little or no direct effect on the present and future cash flows from operations of either the foreign operation or the reporting entity. Rather, the change in exchange rate affects the reporting entity’s net investment in the foreign operation, not the individual monetary and non-monetary items held by the foreign operation.

3.2 Accounting treatment: different functional currency from the reporting entity

The financial statements of the foreign operation must be translated to the functional currency of the parent. Different procedures must be followed here, because the functional currency of the parent is the presentation currency of the foreign operation.

(a) The assets and liabilities shown in the foreign operation’s statement of financial position are translated at the closing rate at the year end, regardless of the date on which those items originated. Share capital and pre-acquisition reserves are translated at the historic rate being the exchange rate on the date of acquisition. Post-acquisition reserves are a balancing figure and include the exchange difference on translation.

(b) Amounts in the statement of profit or loss should be translated at the rate ruling at the date of the transaction (an average rate will usually be used for practical purposes).

Note that the exchange differences on retranslation form part of the post-acquisition reserves of the subsidiary. These are discussed in more detail in section 3.3 below.

Example: Different functional currency from the reporting entity

A dollar-based company, Stone Co, set up a foreign subsidiary on 30 June 20X7. Stone subscribed €24 000 for share capital when the exchange rate was €2 = $1. The subsidiary, Brick Inc, borrowed €72 000 and bought a non-monetary asset for €96 000. Stone Co prepared its accounts on 31 December 20X7 and by that time the exchange rate had moved to €3 = $1.

Required

Prepare Brick Inc’s statement of financial position at 31 December 20X7 in both euros and dollars, and calculate the exchange gain or loss arising since 30 June 20X7.

Solution

From the above it can be seen that Stone Co will record its initial investment at $12 000 which is the starting cost of its shares. The statement of financial position of Brick Inc at 31 December 20X7 is summarised below:

<table>
<thead>
<tr>
<th>€'000</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-monetary asset</td>
<td>96</td>
</tr>
<tr>
<td>Share capital</td>
<td>24</td>
</tr>
<tr>
<td>Loan</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>96</td>
</tr>
</tbody>
</table>

This may be translated as follows:

<table>
<thead>
<tr>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-monetary asset (€3 = $1)</td>
</tr>
<tr>
<td>Share capital and reserves (retained earnings) (balancing figure)</td>
</tr>
<tr>
<td>Loan (€3 = $1)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Exchange gain/(loss) for 20X7

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange gain/(loss) for 20X7</td>
</tr>
</tbody>
</table>

The exchange loss is the difference between the value of the original investment ($12 000) and the net assets as disclosed by the above statements of financial position ($32 – $24).
Question 2: Translation of financial statements

The abridged statement of financial position and statement of profit or loss of Xerxes Inc, appear below:

DRAFT STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X9

<table>
<thead>
<tr>
<th>Xerxes Inc</th>
<th>€</th>
<th>€</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant at cost</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Less depreciation</td>
<td>(200)</td>
<td>(200)</td>
</tr>
<tr>
<td>300</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Receivables</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>300</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Reserves</td>
<td>280</td>
<td></td>
</tr>
<tr>
<td>380</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term loans</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Current liabilities</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 31 DECEMBER 20X9

<table>
<thead>
<tr>
<th>Xerxes Inc</th>
<th>€</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit before tax</td>
<td>300</td>
</tr>
<tr>
<td>Tax</td>
<td>(140)</td>
</tr>
<tr>
<td>Profit after tax, retained</td>
<td>160</td>
</tr>
</tbody>
</table>

The following further information is given:
(a) Darius Co has held its interest in Xerxes Inc since 1 January 20X9. On that date the company had reserves of €120.
(b) Exchange rates:
- €1.8 to $1 on 1 January 20X9
- €1.6 to $1 average rate of exchange year ending 31 December 20X9
- €1 to $1 on 31 December 20X9.

Required
Translate the statement of financial position and statement of profit or loss of Xerxes Inc into dollars.

(The answer is at the end of the chapter)

3.3 Analysis of exchange differences

In the question above, the exchange difference arising on translation of Xerxes' financial statements was included within post-acquisition reserves in the statement of financial position – although you would not necessarily have considered this as you completed the question.

The correct presentation of the exchange difference is as an item of other comprehensive income in the year which is then transferred to post-acquisition reserves. If you are asked to prepare a statement of profit
or loss and other comprehensive income, you may therefore be required to calculate the amount of the exchange difference. It consists of those exchange gains or losses arising from:

(a) translating income or expense items at the average rate, whereas assets or liabilities are translated at the closing rate.

(b) translating the opening net investment (opening net assets) in the foreign entity at a closing rate different from the closing rate at which it was previously reported.

This can be demonstrated using Xerxes:

Using the opening statement of financial position and translating at €1.8 = $1 and €1 = $1 gives the following:

<table>
<thead>
<tr>
<th>€</th>
<th>€1.8:1 = $1</th>
<th>€1:1 = $1</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

Opening net assets
Share capital 100
Reserves (pre-acquisition since acquisition was at start of year) 120
220 122 220 98 gain

This is a gain because net assets worth $122 based on the opening exchange rate are now worth $220 based on the closing exchange rate.

Translating the statement of profit or loss using €1.60 = $1 and €1 = $1 gives the following results:

<table>
<thead>
<tr>
<th>€</th>
<th>€1.60 = $1</th>
<th>€1 = $1</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
</tbody>
</table>

Profit of $100 100 160 60 gain

This is a gain because the reported profit of $100 based on the average exchange rate is worth $160 based on the closing exchange rate.

In the statement of profit or loss and other comprehensive income of Xerxes for the year ended 31 December 20X9, an exchange gain of $158 ($98 + $60) should therefore be recognised as other comprehensive income.

As we have said, the gain forms part of post-acquisition reserves and we can therefore analyse the post-acquisition reserves figure as:

$ 258

4 Disclosure requirements

IAS 21 requires the following disclosures in respect of foreign currency transactions:

(a) The amount of exchange differences recognised in profit or loss in the period.

(b) The amount of exchange differences recognised as other comprehensive income.

(c) If relevant, the fact that the presentation currency is different from the functional currency and the reason why.
Key chapter points

- IAS 21 deals with converting individual transactions into local currency before recording them. It also deals with translating a foreign subsidiary’s accounts before consolidating them.
- Individual foreign currency transactions must be translated into the reporting currency of an entity before they are recorded in the financial statements.
- Foreign monetary items remaining in the statement of financial position at the year end are re-translated using the closing rate.
- Any exchange differences arising on retranslation or settlement are recognised in profit or loss.
- A foreign subsidiary will operate its business and record transactions in its functional currency. Where the entity is part of a group, the parent must translate its financial statements into the group presentation currency prior to consolidation.
- The assets and liabilities shown in the foreign operation’s statement of financial position are translated at the closing rate at the year end, regardless of the date on which those items originated.
- Share capital and pre-acquisition reserves are translated at the historic rate being the exchange rate on the date of acquisition.
- Post-acquisition reserves are a balancing figure and include the exchange difference on translation.
- Amounts in the statement of profit or loss should be translated at the spot rate at the date of the transaction (an average rate for the year will usually be applied to all amounts for practical purposes).
- The exchange difference arising on translation is calculated as the difference between:
  - opening net assets at the opening rate and opening net assets at the closing rate, plus
  - retained profits at the average rate and retained profits at the closing rate.

It is recognised as other comprehensive income and forms part of post-acquisition reserves in the statement of financial position.
Quick revision questions

1 Which of the following statements, in respect of foreign currency translation, are correct according to IAS 21 The effects of changes in foreign exchange rates?

I The functional currency of an entity is selected by management
II The presentation currency of an entity is selected by management
III The functional currency of an entity is identified by reference to circumstances of the business
IV The presentation currency of an entity is identified by reference to circumstances of the business

A I and II only
B I and IV only
C II and III only
D III and IV only

2 BLX Co holds several investments in subsidiaries. One of these, CMY Co, is located abroad. CMY Co prepares its financial statements in its local currency, the crown.

Several years ago, when the exchange rate was 5 crowns = $1, CMY Co purchased land at a cost of 170 000 crowns. On 1 June 20X5, when the exchange rate was 6.5 crowns = $1 the land was revalued at a fair value of 600 000 crowns. The exchange rate at the group’s year end, 31 December 20X5, was 7 crowns = $1.

In accordance with the requirements of IAS 21 The effects of changes in foreign exchange rates, at what value in $ should the land be recognised in BLX Co’s group financial statements at 31 December 20X5?

A $85 714
B $90 440
C $100 154
D $120 000

3 Street Co purchased goods for €450 000 from an overseas supplier on 30 November 20X6. Street Co paid for the goods on 31 January 20X7. They were not sold to third parties until February 20X7.

Exchange rates were:

<table>
<thead>
<tr>
<th>Date</th>
<th>€/$</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 November 20X6</td>
<td>1.5</td>
</tr>
<tr>
<td>31 December 20X6</td>
<td>1.45</td>
</tr>
<tr>
<td>31 January 20X7</td>
<td>1.55</td>
</tr>
</tbody>
</table>

What is the exchange difference that should be reported in profit or loss for the year ended 31 December 20X6 and at what amount should the goods be included in inventory in the statement of financial position at that date?

<table>
<thead>
<tr>
<th>Exchange difference</th>
<th>Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>A $9 677 gain</td>
<td>$290 323</td>
</tr>
<tr>
<td>B $9 677 gain</td>
<td>$300 000</td>
</tr>
<tr>
<td>C $10 345 loss</td>
<td>$300 000</td>
</tr>
<tr>
<td>D $10 345 loss</td>
<td>$310 345</td>
</tr>
</tbody>
</table>
4 Parent Co has three overseas subsidiaries:

1. A Co is 80% owned. A Co does not normally enter into transactions with Parent Co, other than to pay dividends. It operates as a fairly autonomous entity on a day to day basis although Parent Co controls its long term strategy.

2. B Co is 100% owned and has been set up in order to assemble machines from materials provided by Parent Co. These are then transferred to Parent Co, which sells them to third parties.

3. C Co is 75% owned and is located in France. It manufactures and sells its own range of products locally. It negotiates its own day to day financing needs with French banks.

Which of the subsidiaries are likely to have a different functional currency from Parent Co?

A. A Co and B Co
B. A Co and C Co
C. B Co and C Co
D. All three subsidiaries

5 Archway Co has an overseas subsidiary in Sweden. This subsidiary is 75% owned and operates semi-independently of its parent. The exchange gain arising from the translation of the subsidiary’s accounts for the year ended 30 June 20X4 was $20,000.

On 1 June 20X4 Archway Co purchased raw materials from a European supplier for €250,000. It paid for the materials on 31 July 20X4. Relevant exchange rates were:

<table>
<thead>
<tr>
<th>Date</th>
<th>€/$1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 June 20X4</td>
<td>1.6</td>
</tr>
<tr>
<td>30 June 20X4</td>
<td>1.61</td>
</tr>
<tr>
<td>31 July 20X4</td>
<td>1.63</td>
</tr>
</tbody>
</table>

In respect of these items, what is the exchange gain that should be included in the consolidated statement of profit or loss for the year ended 30 June 20X4?

A. $970
B. $2,876
C. $20,970
D. $22,876

6 When a parent has a subsidiary that is a foreign operation, which rates of exchange should be used to translate the items below into the parent’s local currency?

<table>
<thead>
<tr>
<th>Non-current assets</th>
<th>Receivables</th>
<th>Non-current liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Closing rate</td>
<td>Closing rate</td>
<td>Closing rate</td>
</tr>
<tr>
<td>B Historic rate</td>
<td>Closing rate</td>
<td>Closing rate</td>
</tr>
<tr>
<td>C Historic rate</td>
<td>Historic rate</td>
<td>Closing rate</td>
</tr>
<tr>
<td>D Historic rate</td>
<td>Historic rate</td>
<td>Historic rate</td>
</tr>
</tbody>
</table>

7 Bay Co has a foreign subsidiary Sea Co, acquired on 1 January 20X7, which uses the Yoyo as its functional currency. Details of Sea Co are given below:

<table>
<thead>
<tr>
<th>Date</th>
<th>Yoyo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets of Sea Co at 1 Jan 20X7</td>
<td>340,000</td>
</tr>
<tr>
<td>Net assets of Sea Co at 1 Jan 20X8</td>
<td>410,000</td>
</tr>
<tr>
<td>Net assets of Sea Co at 31 Dec 20X8</td>
<td>500,000</td>
</tr>
</tbody>
</table>

Sea Co has paid no dividends since acquisition. It translates all income and expense items using the average rate for the period.

Relevant exchange rates are:

<table>
<thead>
<tr>
<th>Date</th>
<th>Yoyo: $1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January 20X7</td>
<td>2.1</td>
</tr>
<tr>
<td>1 January 20X8</td>
<td>2.0</td>
</tr>
<tr>
<td>31 December 20X8</td>
<td>1.8</td>
</tr>
<tr>
<td>Average rate 1 Jan 20X7 – 31 Dec 20X8</td>
<td>1.95</td>
</tr>
<tr>
<td>Average rate 1 Jan 20X8 – 31 Dec 20X8</td>
<td>1.9</td>
</tr>
</tbody>
</table>
What exchange difference is included in Bay Co’s consolidated reserves for the year ended 31 December 20X8?

A $25 410 loss  
B $25 410 gain  
C $36 386 loss  
D $36 386 gain  

Rain Org is a subsidiary of the Weather Group. Its functional currency is the Zyco, and the presentation currency of the group is the $. The abbreviated statement of financial position of Rain Org at 31 December 20X9 is as follows:

<table>
<thead>
<tr>
<th>Zyco</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td>420 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>210 000</td>
</tr>
<tr>
<td>Total assets</td>
<td>630 000</td>
</tr>
<tr>
<td>Share capital</td>
<td>100 000</td>
</tr>
<tr>
<td>Reserves</td>
<td>350 000</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>180 000</td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td>630 000</td>
</tr>
</tbody>
</table>

Relevant exchange rates are as follows:
3 Zyco: $1 on 31 December 20X9  
2.1 Zyco: $1 on date of acquisition of non-current assets  
2 Zyco: $1 on date Rain Org acquired by Weather Group

What are the translated reserves of Rain Org at 31 December 20X9?

A $100 000  
B $116 667  
C $160 000  
D $175 000  

Aardvark Co bought goods from Hippo Co for Milianian Pounds 230 000 on 31 October 20X8. At that date the exchange rate was MP 2.3: $1. Aardvark paid MP 130 000 of the balance on 30 November in accordance with Hippo’s terms. On that date the exchange rate was MP 2.1: $1. Aardvark’s year end is 31 December 20X8 and on that date the exchange rate was MP 1.8: $1. The balance was settled by Aardvark at the end of January 20X9 when the exchange rate was MP 2: $1.

What exchange difference is recorded in Aardvark’s profit or loss for the year ended 31 December 20X8?

A $5 383 loss  
B $12 078 gain  
C $17 461 loss  
D $17 461 gain  

Which of the following is true?

A An exchange difference arising on the retranslation of a foreign currency loan is recognised in other comprehensive income in an individual entity’s financial statements  
B Monetary items include all types of current assets  
C Non-monetary items denominated in a foreign currency are never retranslated in an entity’s statement of financial position  
D Unrealised exchange differences on the retranslation of monetary items in an entity’s individual accounts are recognised in profit or loss
1. C  The functional currency of an entity is the currency in which its day to day transactions are denominated; the presentation currency is chosen by the management and is the currency in which the financial statements are prepared.

2. A  600 000 crowns/7 = $85 714
   The closing rate must be used.

3. C  
<table>
<thead>
<tr>
<th>Date</th>
<th>Amount</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 November 20X6</td>
<td>300 000</td>
<td></td>
</tr>
<tr>
<td>31 December 20X6</td>
<td>(310 345)</td>
<td></td>
</tr>
</tbody>
</table>
   The inventory is a non-monetary asset. It is translated at the date of the original transaction and remains in the statement of financial position at that amount.

4. B  Subsidiary B Co is clearly an extension of Parent's Co's own activities and therefore it almost certainly has the same functional currency as the parent.

5. A  Exchange gain:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase from European supplier:</td>
<td></td>
</tr>
<tr>
<td>1 June 20X4 (250 000 @ 1.6)</td>
<td>156 250</td>
</tr>
<tr>
<td>30 June 20X4 (250 000 @ 1.61)</td>
<td>(155 280)</td>
</tr>
<tr>
<td></td>
<td>970</td>
</tr>
</tbody>
</table>
   The overseas subsidiary has a different functional currency from its parent (i.e. it is a semi-autonomous operation) and therefore the translation gain of $20 000 is recognised in consolidated reserves rather than reported in profit or loss.

6. A  The assets and liabilities of a foreign subsidiary are always translated at closing rate, not historic rate, where the subsidiary has a different functional currency from its parent.

7. B  
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening net assets at opening rate</td>
<td>205 000</td>
</tr>
<tr>
<td>(410 000/2)</td>
<td></td>
</tr>
<tr>
<td>Opening net assets at closing rate</td>
<td>227 778</td>
</tr>
<tr>
<td>(410 000/1.8)</td>
<td></td>
</tr>
<tr>
<td>Gain</td>
<td>22 778</td>
</tr>
<tr>
<td>Profit for year at average rate</td>
<td>47 368</td>
</tr>
<tr>
<td>(500 000 – 410 000)/1.9</td>
<td></td>
</tr>
<tr>
<td>Profit for year at closing rate</td>
<td>50 000</td>
</tr>
<tr>
<td>(90 000/1.8)</td>
<td></td>
</tr>
<tr>
<td>Gain</td>
<td>2 632</td>
</tr>
<tr>
<td>Overall exchange gain</td>
<td>25 410</td>
</tr>
</tbody>
</table>

8. A  
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets (630 000/3)</td>
<td>210 000</td>
</tr>
<tr>
<td>Share capital (100 000/2)</td>
<td>50 000</td>
</tr>
<tr>
<td>Reserves (bal)</td>
<td>100 000</td>
</tr>
<tr>
<td>Current liabilities (180 000/3)</td>
<td>60 000</td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td>210 000</td>
</tr>
</tbody>
</table>
### 9 C Exchange difference on settled amount:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP 130 000/2.3</td>
<td>56,522</td>
</tr>
<tr>
<td>MP 130 000/2.1</td>
<td>61,905</td>
</tr>
<tr>
<td>Loss</td>
<td>5,383</td>
</tr>
</tbody>
</table>

**Exchange difference on retranslation of outstanding amount at year end:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP 100 000/2.3</td>
<td>43,478</td>
</tr>
<tr>
<td>MP 100 000/1.8</td>
<td>55,556</td>
</tr>
<tr>
<td>Loss</td>
<td>12,078</td>
</tr>
<tr>
<td><strong>Overall loss</strong></td>
<td><strong>17,461</strong></td>
</tr>
</tbody>
</table>

### 10 D Unrealised exchange differences on the retranslation of monetary items in individual entity financial statements are recognised in profit or loss, not other comprehensive income.

Monetary items do not include current assets such as inventories and prepayments, which are classified as non-monetary items.

Non-monetary items denominated in a foreign currency have to be retranslated before they can be included in the statement of financial position.
1. The purchase will be recorded in the books of White Cliffs Co using the rate of exchange ruling on 30 September.

DEBIT Purchases $25 000
CREDIT Trade payables $25 000

Being the $ cost of goods purchased for €40 000 (€40 000 ÷ €1.60/$1)

On 30 November, White Cliffs must pay €20 000. This will cost €20 000 ÷ €1.80/$1 = $11 111 and the company has therefore made an exchange gain of $12 500 – $11 111 = $1 389.

DEBIT Trade payables $12 500
CREDIT Exchange gains: (profit or loss) $1 389
CREDIT Cash $11 111

On 31 December, the year end, the outstanding liability will be recalculated using the rate applicable to that date: €20 000 ÷ €1.90/$1 = $10 526. A further exchange gain of $1 974 has been made and will be recorded as follows:

DEBIT Trade payables $1 974
CREDIT Exchange gains: (profit or loss) $1 974

The total exchange gain of $3 363 will be included in the operating profit for the year ending 31 December.

On 31 January, White Cliffs must pay the second instalment of €20 000. This will cost it $10 811 (€20 000 ÷ €1.85/$1).

DEBIT Trade payables $10 526
CREDIT Exchange losses: (profit or loss) $285
CREDIT Cash $10 811

2. SUMMARISED STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 20X9

<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets (carrying amount) ($1: €1)</td>
<td>300</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
</tr>
<tr>
<td>Inventories ($1: €1)</td>
<td>200</td>
</tr>
<tr>
<td>Receivables ($1: €1)</td>
<td>100</td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
</tr>
<tr>
<td>Ordinary shares (€100/1.8)</td>
<td>55</td>
</tr>
<tr>
<td>Pre-acquisition reserves (€120/1.8)</td>
<td>67</td>
</tr>
<tr>
<td>Post-acquisition reserves (balancing figure)</td>
<td>258</td>
</tr>
<tr>
<td>Non-current liabilities ($1: €1)</td>
<td>380</td>
</tr>
<tr>
<td>Current liabilities ($1: €1)</td>
<td>600</td>
</tr>
<tr>
<td>SUMMARISED STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 20X9</td>
<td></td>
</tr>
<tr>
<td>Profit before tax (€300/1.6)</td>
<td>187.5</td>
</tr>
<tr>
<td>Tax (€140/1.6)</td>
<td>(87.5)</td>
</tr>
<tr>
<td>Profit after tax, retained</td>
<td>100</td>
</tr>
</tbody>
</table>
Chapter 10

The principles of consolidation

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Consolidated financial statements</strong></td>
<td>LO6</td>
</tr>
<tr>
<td>Discuss the forms of business combinations</td>
<td>LO6.1</td>
</tr>
<tr>
<td>Explain the concept of control and how the existence of control is determined</td>
<td>LO6.4</td>
</tr>
<tr>
<td>Explain why transactions within a group must be eliminated</td>
<td>LO6.6</td>
</tr>
<tr>
<td><strong>Equity accounting</strong></td>
<td>LO7</td>
</tr>
<tr>
<td>Define 'significant influence' and briefly analyse the factors that may be used to determine whether significant influence exists</td>
<td>LO7.1</td>
</tr>
</tbody>
</table>

**Topic list**

1. Group accounts – an introduction
2. Group companies
3. Consolidated and separate financial statements
4. Intra-group transactions
Introduction

Consolidation is an extremely important area of your studies.

The key to consolidation questions in the examination is to adopt a logical approach and to practise as many questions as possible.

In this chapter we will look at the major definitions in consolidation. These matters are fundamental to your comprehension of group accounts, so make sure you can understand them and then learn them.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

<table>
<thead>
<tr>
<th>Question</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  What is a subsidiary?</td>
<td>2.1</td>
</tr>
<tr>
<td>2  What is an associate?</td>
<td>2.1</td>
</tr>
<tr>
<td>3  How is control established?</td>
<td>2.2</td>
</tr>
<tr>
<td>4  How is significant influence established?</td>
<td>2.3</td>
</tr>
<tr>
<td>5  How are a subsidiary and an associate accounted for?</td>
<td>2</td>
</tr>
<tr>
<td>6  Which subsidiaries may be excluded from a consolidation?</td>
<td>3.4</td>
</tr>
</tbody>
</table>
1 Group accounts – an introduction

Section overview
- Many large businesses consist of several companies controlled by one central or administrative company. Together these companies are called a group. The controlling company, called the parent or holding company, will own some or all of the shares in the other companies, referred to as subsidiaries.

1.1 Introduction

There are many reasons for one company to buy all or part of another: for the goodwill associated with the names of the subsidiaries, for tax or legal purposes and so forth. In many cases, one company will grow by acquisition and so buy a number of other companies.

In traditional accounting terminology, a group of companies consists of a parent company and one or more subsidiary companies that are controlled by the parent company. These terms are defined in more detail in Section 2 of this chapter.

1.2 The need for group financial statements

The information contained in the individual financial statements of a parent company and each of its subsidiaries does not give a picture of the group’s total activities. Equally, where a group has a number of subsidiaries, users of the accounts will be unable to obtain an understanding of the overall position and performance of the group simply by looking at the numerous financial statements of the individual companies that make up the group.

Therefore, group financial statements must be prepared from the individual financial statements.

Consolidated financial statements are a form of group accounts which combines the information contained in the separate accounts of a holding company and its subsidiaries as if they were the accounts of a single entity. ‘Group accounts’ and ‘consolidated accounts’ are terms often used synonymously.

Most parent companies present their own individual accounts and their group accounts in a single package. The package typically comprises the following:

- Parent company financial statements, which will include ‘investments in subsidiaries’ as an asset in the statement of financial position, and income from subsidiaries (dividends) in the statement of profit or loss and other comprehensive income
- Consolidated statement of financial position
- Consolidated statement of profit or loss and other comprehensive income
- Consolidated statement of changes in equity
- Consolidated statement of cash flows.

It may not be necessary to publish all of the parent company’s financial statements, depending on local or national regulations.

1.3 Accounting standards

We will be discussing four accounting Standards in this and the next three chapters:

- IAS 27 Separate financial statements
- IFRS 3 Business combinations
- IFRS 10 Consolidated financial statements
- IAS 28 Investments in associates and joint ventures.

These standards are all concerned with different aspects of group financial statements, but there is some overlap between them.
In this and the next chapter we will concentrate on IAS 27 and IFRS 10, which cover the basic group definitions and consolidation procedures of a parent-subsidiary relationship. First of all, however, we will consider all the important definitions involved in group financial statements, which determine how to treat each particular type of investment in group financial statements.

2 Group companies

Section overview

- A subsidiary is an entity that is controlled by another entity, its parent. Control can usually be assumed to exist when the parent owns over 50 per cent of the voting power of an entity.

2.1 Definitions

We will look at some of these definitions in more detail later, but they are useful here in that they give you an overview of all aspects of group accounts.

Exam comments

All the definitions relating to group accounts are extremely important. You must learn them and understand their meaning and application.

Definitions

**Control.** An investor controls an investee when the investor is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through power over the investee. *(IFRS 10)*

**Power.** Existing rights that give the current ability to direct the relevant activities of the investee. *(IFRS 10)*

**Subsidiary.** An entity that is controlled by another entity. *(IFRS 10)*

**Parent.** An entity that controls one or more subsidiaries. *(IFRS 10)*

**Group.** A parent and all its subsidiaries. *(IFRS 10)*

**Associate.** An entity over which the investor has significant influence. *(IAS 28)*

**Significant influence** is the power to participate in the financial and operating policy decisions of an investee but is not control or joint control over those policies. *(IAS 28)*

Note that the definitions above refer to 'entities' rather than 'companies'. There is no requirement for members of accounting groups to be companies and groups may include partnerships or other non-corporate entities. Throughout this and the following chapters we shall, however, concentrate on groups made up solely of companies.

We can summarise the different types of investment and the required accounting for them as follows:

<table>
<thead>
<tr>
<th>Investment</th>
<th>Criteria</th>
<th>Required treatment in group accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary</td>
<td>Control</td>
<td>Full consolidation</td>
</tr>
<tr>
<td>Associate</td>
<td>Significant influence</td>
<td>Equity accounting (see Chapter 13)</td>
</tr>
<tr>
<td>Investment which is none of the above</td>
<td>Asset held for accretion of wealth</td>
<td>As for single company accounts</td>
</tr>
</tbody>
</table>
2.2 Investments in subsidiaries

The important point here is **control**. In most cases, this will involve the holding company or parent owning a majority of the ordinary shares in the subsidiary (to which normal voting rights are attached). There are circumstances, however, when the parent may own only a minority of the voting power in the subsidiary, but the parent still has control.

IFRS 10 provides a definition of control and identifies three separate elements of control:

An investor controls an investee if, and only if, it has all of the following:

1. Power over the investee
2. Exposure to, or rights to, variable returns from its involvement with the investee; and
3. The ability to use its power over the investee to affect the amount of the investor's returns

If there are changes to one or more of these three elements of control, then an investor should reassess whether it controls an investee.

Power to direct the relevant activities of an investee (see above) can be obtained directly from ownership of the majority of voting rights or can be derived from other rights, such as:

- Rights to appoint, reassign or remove key management personnel who can direct the relevant activities
- Rights to appoint or remove another entity that directs the relevant activities
- Rights to direct the investee to enter into, or veto changes to, transactions for the benefit of the investor
- Other rights, such as those specified in a management contract

An entity’s **relevant activities** are those which significantly affect its profits or losses (an investor’s returns), normally its trading, operating and financial activities.

If a parent has invested in a subsidiary it normally expects to obtain some kind of **return** on its investment. The key point here is that the return must have the potential to vary as a result of the investee’s performance. If an investor has control over an investee, the amount of the return that it receives depends on the investee’s results.

2.2.1 Accounting treatment in group financial statements

IFRS 10 requires a parent to present consolidated financial statements, in which the accounts of the parent and subsidiary (or subsidiaries) are combined and presented as a single entity.

2.3 Investments in associates

This type of investment is something less than a subsidiary, but more than a simple investment. The key criterion here is **significant influence**. This is defined as the 'power to participate', but not to 'control' (which would make the investment a subsidiary).

Significant influence can be determined by the holding of voting rights (usually attached to shares) in the entity. IAS 28 states that if an investor holds 20 per cent or more of the voting power of the investee, it can be presumed that the investor has significant influence over the investee, unless it can be clearly shown that this is not the case.

Significant influence can be presumed not to exist if the investor holds less than 20 per cent of the voting power of the investee, unless it can be demonstrated otherwise.

The existence of significant influence is evidenced in one or more of the following ways:

(a) Representation on the board of directors (or equivalent) of the investee
(b) Participation in the policy making process
(c) Material transactions between investor and investee
(d) Interchange of management personnel
(e) Provision of essential technical information.
2.3.1 Accounting treatment in group financial statements

IAS 28 requires the use of the equity method of accounting for investments in associates. This method will be explained in detail in Chapter 13.

Question 1: Treatments

The section summary after this question will give an augmented version of the table given in Paragraph 2.1 above. Before you look at it, see if you can write out the table yourself.

(The answer is at the end of the chapter)

2.4 Section summary

<table>
<thead>
<tr>
<th>Investment</th>
<th>Criteria</th>
<th>Required treatment in group accounts</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Investment</td>
<td>none of the above</td>
<td>Asset held for accretion of wealth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As for single company accounts</td>
</tr>
</tbody>
</table>

3 Consolidated and separate financial statements

3.1 Introduction

Definition

Consolidated financial statements. The financial statements of a group in which the assets, liabilities, equity, income, expenses and cash flows of the parent and its subsidiaries are presented as those of a single economic entity. (IFRS 10)

When a parent issues consolidated financial statements, it should consolidate all subsidiaries, both foreign and domestic. IFRS 10 provides guidance on the mechanics of consolidation including exemptions from consolidation, the use of uniform accounting policies, matching reporting dates and the elimination of intra-group transactions.

3.2 Exemption from preparing group accounts

A parent need not present consolidated financial statements if and only if all of the following hold:

(a) The parent is itself a wholly-owned subsidiary or it is a partially owned subsidiary of another entity and its other owners, including those not otherwise entitled to vote, have been informed about, and do not object to, the parent not presenting consolidated financial statements

(b) Its securities are not publicly traded

(c) It is not in the process of issuing securities in public securities markets; and

(d) The ultimate or intermediate parent publishes consolidated financial statements that comply with International Financial Reporting Standards.
A parent that does not present consolidated financial statements must comply with the IAS 27 rules on separate financial statements.

3.3 **Exclusion of a subsidiary from consolidation**

A parent must include all entities that it controls in its consolidated financial statements.

The rules on exclusion of subsidiaries from consolidation are necessarily strict, because in the past this was a common method used by entities to manipulate their results. If a subsidiary which carries a large amount of debt can be excluded, then the gearing of the group as a whole will be improved. In other words, this is a way of taking debt out of the statement of financial position.

Subsidiaries held for sale are accounted for in accordance with IFRS 5 *Non-current assets held for sale and discontinued operations* rather than consolidated under IAS 27. IFRS 5 does not form part of the Financial Accounting and Reporting syllabus.

It has been argued in the past that subsidiaries should be excluded from consolidation on the grounds of dissimilar activities, i.e. the activities of the subsidiary are so different to the activities of the other companies within the group that to include its results in the consolidation would be misleading. Exclusion on these grounds is not justified because better (relevant) information can be provided about such subsidiaries by consolidating their results and then giving additional information about the different business activities of the subsidiary.

3.4 **Uniform accounting policies**

Consolidated financial statements should be prepared using the same accounting policies for like transactions and other events in similar circumstances.

Adjustments must be made where members of a group use different accounting policies, so that their financial statements are suitable for consolidation.

3.5 **Different reporting dates**

In most cases, all group companies will prepare accounts to the same reporting date. One or more subsidiaries may, however, prepare accounts to a different reporting date from the parent and the bulk of other subsidiaries in the group.

In such cases the subsidiary may prepare additional statements to the reporting date of the rest of the group, for consolidation purposes. If this is not possible, the subsidiary’s accounts may still be used for the consolidation, provided that the gap between the reporting dates is three months or less.

Where a subsidiary’s accounts are drawn up to a different accounting date, adjustments should be made for the effects of significant transactions or other events that occur between that date and the parent’s reporting date.

3.6 **Date of inclusion or exclusion**

The results of subsidiaries are included in the consolidated financial statements from:

(a) The date the parent obtains control, to

(b) The date the investor loses control.

Once an investment is no longer a subsidiary, it should be treated as an associate under IAS 28 (if applicable) or as an investment under IAS 39 (outside the scope of the Financial Accounting and Reporting syllabus).
3.7 **Accounting for subsidiaries and associates in the parent's separate financial statements**

Parent company financial statements are no longer required in Australia. Where a parent company does not prepare separate financial statements, the Corporations Law requires various disclosures in the notes to the consolidated financial statements about the parent company.

Where a parent company chooses to produce its own separate financial statements (single company financial statements) these should be prepared in accordance with IAS 27 *Separate financial statements*.

In a parent’s separate financial statements, investments in subsidiaries and associates included in the consolidated financial statements should be either:

(a) Accounted for at **cost**, or
(b) In accordance with IAS 39 (*outside the scope* of the Financial Accounting and Reporting syllabus).

An entity should apply the same accounting treatment for each category of investments.

The parent recognises dividends from a subsidiary or an associate in profit or loss when its right to receive the dividend is established.

4 **Intra-group transactions**

Section overview

- It is common for parent companies to transact with their subsidiaries. These transactions should not be reflected in the consolidated accounts.

One of the reasons why groups grow and companies acquire other companies is vertical integration. In other words, a company acquires its suppliers or customers. Therefore, it follows that intra-group or intercompany transactions are commonplace within group scenarios. One group company may sell goods to another, or it may be that one company provides funding for others. Equally, where a subsidiary pays a dividend to its shareholders, some, or all of this amount is due to the parent company.

These transactions between group companies are (quite rightly) represented in the companies’ individual accounts. When considering the group accounts, however, it must be remembered that they aim to present the group as a single economic entity. One entity is unable to trade with itself or lend to itself, and therefore the effects of intra-group transactions must be eliminated on consolidation. The mechanics of this are covered in the following two chapters.

The net result is that the group accounts only include the effects of transactions between the group companies and third parties outside the group.
Key chapter points

- The parent or holding company of a group owns some or all of the shares in the other companies.
- The information contained in the individual financial statements of a parent company and each of its investee companies does not give a picture of the group’s total activities. Therefore, group financial statements must be prepared from the individual ones.
- A subsidiary is an entity that is controlled by the parent company. Control can usually be assumed to exist when the parent owns over 50 per cent of the voting power of an entity.
- Subsidiaries are consolidated in the group financial statements.
- A parent company has significant influence over an associate. Significant influence is normally assumed to exist where the parent owns at least 20 per cent of the voting power of an entity.
- Associates are equity accounted within the group financial statements.
- Where a parent company has neither control nor significant influence over an investee, the investment is recognised in group financial statements in the same way as in the parent’s individual accounts.
- Subsidiaries may only be excluded from consolidation if they are held for sale.
- Consolidated financial statements should be prepared from parent and subsidiary accounts which use the same accounting policies for like transactions and other events in similar circumstances.
- Consolidated financial statements should be prepared from parent and subsidiary accounts prepared to the same reporting date. If this is not possible, the subsidiary’s accounts may still be used for the consolidation, provided that the gap between the reporting dates is three months or less.
- It is common for parent companies to transact with their subsidiaries. These transactions should not be reflected in the consolidated financial statements.
Quick revision questions

1. During the last three years Harvert Co had held 400,000 ordinary shares in Jamee Co. The issued share capital of Jamee Co is 1 million shares totalling $500,000. The finance director of Harvert Co is a director of Jamee Co.

How should the investment in Jamee Co be treated in the consolidated financial statements of Harvert Co?

A. As a current asset investment  
B. As a non-current asset investment  
C. As a subsidiary  
D. As an associate

2. A owns 51% of the voting shares in B and 100% of the voting shares in D. B owns 25% of the voting shares in C and has board representation in that company.

All holdings have been held for a number of years.

Which of the following statements is correct?

A. B, C and D are subsidiaries of A  
B. B and D are subsidiaries of A while C is a subsidiary of B  
C. B and D are subsidiaries of A while C is an associate of B  
D. D is a subsidiary of A while B and C are investments of A

3. Which one of the following is a valid reason for excluding a 75% owned company from consolidation under current International Financial Reporting Standards?

A. A formally documented decision has been made by the directors to wind down the activities of the company  
B. The activities of the company are so dissimilar from those of the rest of the group that it would be misleading to include it in the consolidation  
C. The company operates in a country where the government has recently passed a law to obtain the power to govern the financial and operating policies of all entities  
D. The company operates in a hyperinflationary environment

4. Which of the following provide evidence of a parent-subsidiary relationship?

I. The parent has power over more than 50% of the voting rights through agreement with other investors  
II. The parent has power to direct the operating activities of the entity by statute  
III. The parent has the power to remove a majority of members of the board of directors  
IV. The parent has representation on the board of directors  

A. I only  
B. I and IV only  
C. I, II and III only  
D. I, II, III and IV

5. During the last financial year, Orius Co acquired 44% of the issued share capital of Eerus Co. Under the terms of the acquisition, the finance director of Orius was appointed to the board of directors of Eerus.

Which of the following correctly describes how Orius should account for its interest in Eerus in the consolidated financial statements?

A. As a subsidiary, using consolidation accounting  
B. As a subsidiary, using equity accounting  
C. As an associate, using consolidation accounting  
D. As an associate, using equity accounting
6 Which of the following provides evidence of a situation where the investee should be accounted for using the equity method?

A A shareholding of 18% in the investee
B Provision of operational personnel by the parent to the investee
C Provision of essential technical information by the parent to the investee
D The parent has the power to govern the financial policies of the investee by agreement

7 Where a subsidiary does not prepare accounts to the same date as the parent company, which of the following is true?

A Additional financial statements must be prepared to the group reporting date by the subsidiary
B The subsidiary’s accounts may be used for the consolidation provided that the gap between the reporting dates is three months or less
C The subsidiary’s accounts may be used for the consolidation provided that they are prepared to a date within three months after the end of the group reporting period
D The subsidiary’s accounts may be used for the consolidation provided that they are prepared to a date within three months before the end of the group reporting period

8 Which of the following statements are true?

I Intra-group transactions must be eliminated on consolidation
II A holding of 10% of ordinary voting shares in another company is accounted for in accordance with IAS 28 Investments in associates and joint ventures
III Where a subsidiary does not adopt the same accounting policies as its parent company, adjustments must be made to bring its accounting policies into line prior to consolidation
IV Where a group comprises a parent company and an investee over which the parent has significant influence, consolidated accounts must be prepared

A I and III only
B I and IV only
C II and III only
D I, II, III and IV
Answers to quick revision questions

1 D Shareholding in Jamee = \( \frac{400\,000\,\text{shares}}{1,000\,000\,\text{shares}} = 40\% \)

With such a shareholding and with one director on the board of Jamee it is likely that Harvert has significant influence over the operating and financial policies of Jamee (although not control).

Therefore, this investment would be treated as an associate in the consolidated financial statements of Harvert.

2 C A controls B and D as a result of holding the majority of the shares in each company, therefore they are subsidiaries. B has significant influence over C and therefore C is an associate of B. C is not controlled by A or B and is therefore not a subsidiary of either of these companies.

3 C The company is no longer controlled; the laws passed by the government transfer control to the state from the majority shareholder.

4 C Representation of the parent on the board of directors of the investee is evidence of significant influence rather than dominant influence or control.

5 D With a shareholding of 44% it would not appear that Orius has control of Eerus but particularly with representation on the board of directors it does seem to exert significant influence. Therefore, Eerus would be treated as an associate using equity accounting.

6 C An associate is accounted for using the equity method. An associate relationship is presumed where the holding of ordinary voting shares is at least 20%, so the answer is not A. A further indicator of an associate relationship is the provision of management personnel – not simply operational personnel, hence not B. Where the parent has the power to govern the financial policies of the investee by agreement, this is evidence of a parent-subsidiary relationship.

7 B A subsidiary need not prepare accounts to the same date as the parent company in order for them to be consolidated, however the subsidiary’s reporting date should be within three months either side of the group reporting date.

8 A Consolidated accounts are only prepared where there is at least one subsidiary. Where there is no subsidiary but an investor has significant influence over an investee then that investee is recognised in the parent company’s accounts in accordance with IAS 28, but consolidated accounts are not prepared.
### Answer to chapter question

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</tbody>
</table>
Chapter 11
The consolidated statement of financial position

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated financial statements</td>
<td>LO6</td>
</tr>
<tr>
<td>Explain how goodwill is measured and disclosed at the date of acquisition</td>
<td>LO6.2</td>
</tr>
<tr>
<td>Explain how goodwill is measured subsequent to the date of acquisition including the requirements regarding impairment</td>
<td>LO6.3</td>
</tr>
<tr>
<td>Explain and prepare consolidation worksheet entries where a parent has ownership interest in a subsidiary</td>
<td>LO6.5</td>
</tr>
<tr>
<td>Explain why transactions within a group must be eliminated</td>
<td>LO6.6</td>
</tr>
<tr>
<td>Explain when profit from transactions within a group will be considered to be realised</td>
<td>LO6.7</td>
</tr>
<tr>
<td>Prepare consolidation worksheet entries to eliminate transactions within a group</td>
<td>LO6.8</td>
</tr>
<tr>
<td>Define and explain the concept of 'non-controlling interest'</td>
<td>LO6.9</td>
</tr>
</tbody>
</table>

Topic list

1. Summary of consolidation procedures
2. Non-controlling interests
3. Dividends paid by a subsidiary
4. Goodwill arising on consolidation
5. Non-controlling interest at fair value
6. Intra-group trading
7. Intra-group sales of non-current assets
8. Summary: consolidated statement of financial position
9. Acquisition of a subsidiary during its accounting period
10. Fair values in acquisition accounting
This chapter introduces the **basic procedures** required in consolidation and gives a formal step plan for carrying out a statement of financial position consolidation. The **method of consolidation** shown here uses schedules for workings (retained earnings, non-controlling interest and so on). Although the nature of the Financial Accounting and Reporting exam means that you will not be asked to produce a full consolidated statement of financial position, you may be asked for any figure within it. Knowing and understanding the working schedules therefore remains key.

There are plenty of questions in this chapter – work through all of them carefully. Many of them are full consolidation questions, but the more familiar you are with these, the easier it will be to deal with MCQ style questions which cover only one area.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the study manual.

1. How are amounts owed by a subsidiary to a parent company dealt with in the consolidated statement of financial position? (Section 1.2)
2. What is the non-controlling interest and how is it measured at acquisition? (Section 2.1)
3. What are the basic consolidation procedures regarding assets and liabilities and share capital? (Section 2.2)
4. When does goodwill arise in a consolidated statement of financial position? (Section 4)
5. How is goodwill calculated? (Sections 4.3 and 4.4)
6. How is positive goodwill accounted for? (Section 4.1)
7. How is a bargain purchase accounted for? (Section 4.8)
8. How is contingent consideration accounted for? (Section 4.9.1)
9. What is an unrealised profit in a group context? (Section 6.1)
10. How is an unrealised profit accounted for? (Sections 6.1 and 6.2)
11. What consolidation adjustments are required where the fair value of the subsidiary’s net assets differ from book value? (Section 10.3)
1 Summary of consolidation procedures

Section overview

- How are consolidated financial statements prepared? IFRS 10 lays out the basic procedures and we will consider these in the rest of this chapter.

1.1 Basic procedure

The financial statements of a parent and its subsidiaries are combined on a line-by-line basis by adding together like items of assets, liabilities, equity, income and expenses.

The following steps are then taken, in order that the consolidated financial statements should show financial information about the group as if it was a single entity:

(a) The carrying amount of the parent’s investment in each subsidiary and the parent’s portion of equity of each subsidiary are eliminated or cancelled.

(b) Non-controlling interests in the net income of consolidated subsidiaries are adjusted against group income, to arrive at the net income attributable to the parent.

(c) Non-controlling interests in the net assets of consolidated subsidiaries should be presented separately in the consolidated statement of financial position.

Other matters to be dealt with include the following:

(a) Goodwill on consolidation should be dealt with according to IFRS 3 Business combinations

(b) Dividends paid by a subsidiary must be accounted for.

IFRS 10 states that all intra-group balances and transactions, and the resulting unrealised profits, should be eliminated in full. Unrealised losses resulting from intra-group transactions should also be eliminated unless cost can not be recovered. This will be explained later in this chapter.

1.2 Cancellation

The preparation of a consolidated statement of financial position, in a very simple form, consists of two procedures:

(a) Take the individual accounts of the parent company and each subsidiary and cancel out items that appear as an asset in one company and a liability in another.

(b) Add together all the uncancelled assets and liabilities throughout the group.

Items requiring cancellation may include the following:

(a) The asset ‘investment in subsidiary companies’ which appears in the parent company’s accounts will be matched with the liability (or equity) ‘share capital’ in the subsidiaries’ accounts.

(b) There may be intra-group trading within the group. For example, S Co may sell goods on credit to P Co. P Co would then be a receivable in the accounts of S Co, while S Co would be a payable in the accounts of P Co.

Example: Cancellation

P Co regularly sells goods to its one subsidiary company, S Co, which it has owned since S Co’s incorporation. The statements of financial position of the two companies on 31 December 20X6 are given below.
The consolidating items are:

(a) P Co’s asset 'investment in shares of S Co' ($40 000) cancels with S Co’s liability (equity) 'share capital' ($40 000);

(b) P Co’s asset ‘receivables: S Co’ ($2 000) cancels with S Co’s liability ‘payables: P Co’ ($2 000).

The remaining assets and liabilities are added together to produce the following consolidated statement of financial position.

<table>
<thead>
<tr>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td><strong>Assets</strong></td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
<td><strong>Non-current assets</strong></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>Property, plant and equipment</td>
</tr>
<tr>
<td>35 000</td>
<td>45 000</td>
</tr>
<tr>
<td>Investment in 40 000 shares in S Co at cost</td>
<td>Investment in 40 000 shares in S Co at cost</td>
</tr>
<tr>
<td>40 000</td>
<td>40 000</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td><strong>Current assets</strong></td>
</tr>
<tr>
<td>Inventories</td>
<td>Inventories</td>
</tr>
<tr>
<td>16 000</td>
<td>12 000</td>
</tr>
<tr>
<td>Receivables: S Co</td>
<td>Receivables: S Co</td>
</tr>
<tr>
<td>2 000</td>
<td>2 000</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
</tr>
<tr>
<td>6 000</td>
<td>9 000</td>
</tr>
<tr>
<td>Cash at bank</td>
<td>Cash at bank</td>
</tr>
<tr>
<td>1 000</td>
<td>1 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>Total assets</strong></td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td><strong>Equity and liabilities</strong></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td><strong>Equity</strong></td>
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<tr>
<td>40 000 ordinary shares</td>
<td>40 000 ordinary shares</td>
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<tr>
<td>70 000 ordinary shares</td>
<td>70 000 ordinary shares</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>Retained earnings</td>
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<tr>
<td>16 000</td>
<td>19 000</td>
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<tr>
<td><strong>Current liabilities</strong></td>
<td><strong>Current liabilities</strong></td>
</tr>
<tr>
<td>Bank overdraft</td>
<td>Bank overdraft</td>
</tr>
<tr>
<td>3 000</td>
<td>3 000</td>
</tr>
<tr>
<td>Payables: P Co</td>
<td>Payables: P Co</td>
</tr>
<tr>
<td>14 000</td>
<td>14 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td><strong>Total equity and liabilities</strong></td>
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<tr>
<td><strong>Total assets</strong></td>
<td><strong>Total assets</strong></td>
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<tr>
<td>70 000 ordinary shares</td>
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<td>Retained earnings</td>
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<tr>
<td>16 000</td>
<td>19 000</td>
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<tr>
<td>3 000</td>
<td>3 000</td>
</tr>
<tr>
<td>Payables</td>
<td>Payables</td>
</tr>
<tr>
<td>16 000</td>
<td>16 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td><strong>Total equity and liabilities</strong></td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>Total assets</strong></td>
</tr>
</tbody>
</table>
Note the following:

(a) P Co’s bank balance is not netted off with S Co’s bank overdraft. To offset one against the other would be less informative and would conflict with the principle that assets and liabilities should not be netted off.

(b) The share capital in the consolidated statement of financial position is the share capital of the parent company alone. This must always be the case, no matter how complex the consolidation, because the share capital of subsidiary companies must always be a wholly cancelling item.

1.3 Part cancellation

An item may appear in the statements of financial position of a parent and its subsidiary, but not at the same amounts:

(a) The parent company may have acquired shares in the subsidiary at a price greater or less than the amount at which they are recorded in the accounts of the subsidiary. The asset (investment) will appear in the parent’s accounts at cost or fair value, while the liability (equity) will appear in the subsidiary’s accounts at book value. This raises the issue of goodwill, which is dealt with later in this chapter.

(b) The parent company may not have acquired all the shares of the subsidiary (so the subsidiary may be only partly owned). This raises the issue of non-controlling interests, which are also dealt with later in this chapter.

(c) The inter-company trading balances may be out of step because of goods or cash in transit.

(d) One company may have issued loan capital of which a proportion only is taken up by the other company.

The following question illustrates the techniques needed to deal with items (c) and (d) above.

The procedure is to cancel as far as possible. The remaining uncancelled amounts will appear in the consolidated statement of financial position:

(a) Uncancelled loan stock will appear as a liability of the group.

(b) Uncancelled balances on intra-group accounts represent goods or cash in transit, which will appear in the consolidated statement of financial position.

**Question 1: Cancellation**

The statements of financial position of P Co and of its subsidiary S Co have been made up to 30 June. P Co has owned all the ordinary shares and 40% of the loan stock of S Co since its incorporation.

**P CO**

**STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE**

<table>
<thead>
<tr>
<th>Assets</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>120 000</td>
</tr>
<tr>
<td>Investment in S Co, at cost</td>
<td>80 000</td>
</tr>
<tr>
<td>80 000 ordinary shares</td>
<td>20 000</td>
</tr>
<tr>
<td>$20 000 of 12% loan stock in S Co</td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>50 000</td>
</tr>
<tr>
<td>Receivables</td>
<td>40 000</td>
</tr>
<tr>
<td>Current account with S Co</td>
<td>18 000</td>
</tr>
<tr>
<td>Cash</td>
<td>4 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>332 000</strong></td>
</tr>
</tbody>
</table>
The consolidated statement of financial position

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares, fully paid</td>
<td>100 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>95 000</td>
<td></td>
</tr>
<tr>
<td><strong>Non-current liabilities</strong></td>
<td></td>
<td>195 000</td>
</tr>
<tr>
<td>10% loan stock</td>
<td>75 000</td>
<td></td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payables</td>
<td>47 000</td>
<td></td>
</tr>
<tr>
<td>Taxation</td>
<td>15 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td></td>
<td>332 000</td>
</tr>
</tbody>
</table>

S CO
STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>100 000</td>
<td></td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>60 000</td>
<td></td>
</tr>
<tr>
<td>Receivables</td>
<td>30 000</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>6 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>96 000</td>
<td></td>
</tr>
</tbody>
</table>

**Equity and liabilities**

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80 000 ordinary shares, fully paid</td>
<td>80 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>28 000</td>
<td></td>
</tr>
<tr>
<td><strong>Non-current liabilities</strong></td>
<td></td>
<td>108 000</td>
</tr>
<tr>
<td>12% loan stock</td>
<td>50 000</td>
<td></td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payables</td>
<td>16 000</td>
<td></td>
</tr>
<tr>
<td>Taxation</td>
<td>10 000</td>
<td></td>
</tr>
<tr>
<td>Current account with P Co</td>
<td>12 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td></td>
<td>38 000</td>
</tr>
</tbody>
</table>

The difference on current account arises because of goods in transit.

**Required**

Prepare the consolidated statement of financial position of P Co.

(The answer is at the end of the chapter)

2 Non-controlling interests

**Section overview**
- In the consolidated statement of financial position it is necessary to distinguish non-controlling interests from those net assets attributable to the group and financed by parent shareholders' equity.
2.1 Introduction

It was mentioned earlier that the total assets and liabilities of subsidiary companies are included in the consolidated statement of financial position, even in the case of subsidiaries which are only partly owned. A proportion of the net assets of such subsidiaries in fact belongs to investors from outside the group (non-controlling interests).

IFRS 3 allows two alternative ways of measuring the non-controlling interest at acquisition:

(a) As a proportionate share of the fair value of the subsidiary’s net assets; or

(b) At full (or fair) value (usually based on the market value of the shares held by the non-controlling interest).

Regardless of the measurement method used, the non-controlling interest reported in the consolidated statement of financial position at subsequent reporting dates is increased by the non-controlling interest’s share of profits made by the subsidiary since acquisition.

Exam comments

For the purposes of the exam, you are required to be able to apply both of the measurement methods.

The following example shows non-controlling interest calculated at its proportionate share of the subsidiary’s net assets.

Example: Non-controlling interests

P Co has owned 75% of the share capital of S Co since the date of S Co’s incorporation. Their latest statements of financial position are given below.

**P CO**

**STATEMENT OF FINANCIAL POSITION**

<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>50 000</td>
</tr>
<tr>
<td>30 000 ordinary shares in S Co at cost</td>
<td>30 000</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>80 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>125 000</strong></td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
</tr>
<tr>
<td>80 000 ordinary shares</td>
<td>80 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>25 000</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>105 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td><strong>125 000</strong></td>
</tr>
</tbody>
</table>

**S CO**

**STATEMENT OF FINANCIAL POSITION**

<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>35 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>35 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>70 000</strong></td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
</tr>
<tr>
<td>40 000 ordinary shares</td>
<td>40 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>10 000</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>50 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td><strong>70 000</strong></td>
</tr>
</tbody>
</table>

**Required**

Prepare the consolidated statement of financial position.
Solution

All of S Co’s net assets are consolidated despite the fact that the company is only 75% owned. The amount of net assets attributable to non-controlling interests is calculated as follows:

Non-controlling interest at acquisition:
- Non-controlling share of share capital (25% × $40 000) 10 000
- Non-controlling share of S Co’s profits since acquisition:
  - Non-controlling share of retained earnings (25% × $10 000) 2 500
  - Non-controlling interest 12 500

Of S Co’s share capital of $40 000, $10 000 is included in the figure for non-controlling interest, while $30 000 is cancelled with P Co’s asset 'investment in S Co'.

Of S Co’s retained earnings of $10 000, $2 500 is included in the figure for non-controlling interest, while $7 500 ‘belongs’ to the group and so is included in group retained earnings in the consolidated statement of financial position.

The consolidated statement of financial position can now be prepared.

P GROUP
CONSOLIDATED STATEMENT OF FINANCIAL POSITION

<table>
<thead>
<tr>
<th>Assets</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>85 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>80 000</td>
</tr>
<tr>
<td>Total assets</td>
<td>165 000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equity and liabilities</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity attributable to owners of the parent</td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>80 000</td>
</tr>
<tr>
<td>Retained earnings $(25 000 + (75% × $10 000))</td>
<td>32 500</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td>112 500</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>125 000</td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td>165 000</td>
</tr>
</tbody>
</table>

2.2 Procedure

(a) Aggregate the assets and liabilities in the statement of financial position i.e. 100% P + 100% S irrespective of how much P actually owns. This shows the amount of net assets controlled by the group.

(b) Share capital is that of the parent only.

(c) Calculate the non-controlling interest share of the subsidiary’s net assets (share capital plus retained earnings plus any other reserves).

(d) The balance of the subsidiary’s retained earnings and other reserves are consolidated (after cancelling any intra-group items).
Question 2: Part cancellation

Set out below are the draft statements of financial position of P Co and its subsidiary S Co. You are required to prepare the consolidated statement of financial position. The non-controlling interest is valued at its proportional share of the fair value of the subsidiary's net assets.

P CO

<table>
<thead>
<tr>
<th>Assets</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>31 000</td>
<td></td>
</tr>
<tr>
<td>Investment in S Co</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 000 ordinary shares at cost</td>
<td>12 000</td>
<td></td>
</tr>
<tr>
<td>$8 000 10% loan at cost</td>
<td>8 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 000</td>
<td>51 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>21 000</td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td>72 000</td>
<td></td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 000 Ordinary shares</td>
<td>40 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>22 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>62 000</td>
<td></td>
</tr>
<tr>
<td>Current liabilities</td>
<td>10 000</td>
<td></td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td>72 000</td>
<td></td>
</tr>
</tbody>
</table>

S CO

<table>
<thead>
<tr>
<th>Assets</th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>34 000</td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td>32 000</td>
<td></td>
</tr>
<tr>
<td>Total assets</td>
<td>66 000</td>
<td></td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 000 Ordinary shares</td>
<td>20 000</td>
<td></td>
</tr>
<tr>
<td>Revaluation surplus</td>
<td>6 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>4 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 000</td>
<td></td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10% loan stock</td>
<td>26 000</td>
<td></td>
</tr>
<tr>
<td>Current liabilities</td>
<td>10 000</td>
<td></td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td>66 000</td>
<td></td>
</tr>
</tbody>
</table>

(The answer is at the end of the chapter)

Question 3: Non-controlling interest

Pam Co acquired 90% of the ordinary voting shares in Sam Co on 1 March 20X7 for $5.6 million. At that date the fair value of a 10% holding in Sam Co was $460 000. Sam Co has made the following profits since acquisition:

- $275 400 in the year ended 28 February 20X8
- $286 000 in the year ended 28 February 20X9

The net assets of Sam Co at 28 February 20X9 are $5.56 million and the fair value of a 10% shareholding at that date based on market values is $520 000. What is the non-controlling interest in the Pam Co Consolidated Statement of Financial Position at 28 February 20X9 assuming that it is group policy to apply the fair value method of measurement?

A $516 140
B $520 000
C $556 000
D $1 016 000

(The answer is at the end of the chapter)
3 Dividends paid by a subsidiary

When a subsidiary pays a dividend during the year the accounting treatment is not difficult. Suppose S Co, a 60% subsidiary of P Co, pays a dividend of $1 000 on the last day of its accounting period. Its total reserves before paying the dividend stood at $5 000.

(a) $400 of the dividend is paid to non-controlling shareholders. The cash leaves the group and will not appear anywhere in the consolidated statement of financial position.

(b) The parent company receives $600 of the dividend, debiting cash and crediting profit or loss. This will be cancelled on consolidation.

(c) The remaining balance of retained earnings in S Co's statement of financial position ($4 000) will be consolidated in the normal way. The parent's share (60% \times $4 000 = $2 400) will be included in group retained earnings in the statement of financial position; the non-controlling interest share (40% \times $4 000 = $1 600) is credited to the non-controlling interest account in the statement of financial position.

4 Goodwill arising on consolidation

Section overview

- Goodwill arises where the consideration transferred by the parent company is not equal to the group share of net assets at acquisition.

4.1 Accounting

To begin with, we will examine the entries made by the parent in its own statement of financial position when it acquires shares.

When a company P Co wishes to purchase shares in a company S Co it must pay the previous owners of those shares. The most obvious form of payment would be in cash. Suppose P Co purchases all 40 000 shares in S Co and pays $60 000 cash to the previous shareholders in consideration. The entries in P Co's books would be:

DEBIT  Investment in S Co at cost $60 000
CREDIT  Bank $60 000

However, the previous shareholders might be prepared to accept some other form of consideration. For example, they might accept an agreed number of shares in P Co. P Co would then issue new shares in the agreed number and allot them to the former shareholders of S Co. This kind of deal might be attractive to P Co since it avoids the need for a heavy cash outlay. The former shareholders of S Co would retain an indirect interest in that company's profitability via their new holding in its parent company.

Continuing the example, suppose that instead of $60 000 cash the shareholders of S Co agreed to accept one ordinary share in P Co for every two ordinary shares in S Co. P Co would then need to issue and allot 20 000 new shares. How would this transaction be recorded in the books of P Co?

The former shareholders of S Co have presumably agreed to accept 20 000 shares in P Co because they consider each of those shares to have a value of $3. This gives us the following method of recording the transaction in P Co's books:

DEBIT  Investment in S Co $60 000
CREDIT  Share capital $60 000

The amount which P Co records in its books as the cost of its investment in S Co may be more or less than the book value of the assets it acquires. Suppose that S Co in the previous example has nil reserves and nil liabilities, so that its share capital of $40 000 is balanced by tangible assets with a book value of $40 000. For simplicity, assume that the book value of S Co's assets is the same as their market or fair value.
Now when the directors of P Co agree to pay $60,000 for a 100 per cent investment in S Co they must believe that, in addition to its tangible assets of $40,000, S Co must also have intangible assets worth $20,000. This amount of $20,000 paid over and above the value of the tangible assets acquired is called **goodwill arising on consolidation** (sometimes **premium on acquisition**).

Following the normal cancellation procedure the $40,000 share capital in S Co's statement of financial position could be cancelled against $40,000 of the 'investment in S Co' in the statement of financial position of P Co. This would leave a $20,000 debit uncancelled in the parent company's accounts and this $20,000 would appear in the consolidated statement of financial position under the caption 'Intangible non-current assets: goodwill arising on consolidation'.

Goodwill is not amortised, however it is subject to an annual impairment review.

### 4.2 Goodwill and pre-acquisition profits

Up to now we have largely assumed that S Co had nil retained earnings when its shares were purchased by P Co. Assuming instead that S Co had earned profits of $8,000 in the period before acquisition, its statement of financial position just before the purchase would look as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets</strong></td>
<td>$48,000</td>
</tr>
<tr>
<td>Share capital</td>
<td>$40,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>$8,000</td>
</tr>
</tbody>
</table>

If P Co now purchases all the shares in S Co it will acquire total assets worth $48,000 at a cost of $60,000. Clearly, in this case, S Co's intangible assets (goodwill) are being valued at $12,000. It should be apparent that any earnings retained by the subsidiary **prior to its acquisition** by the parent company must be **incorporated in the cancellation** process so as to arrive at a figure for goodwill arising on consolidation. In other words, not only S Co's share capital, but also its **pre-acquisition** retained earnings, must be cancelled against the asset 'investment in S Co' in the accounts of the parent company. The uncancelled balance of $12,000 appears in the consolidated statement of financial position.

The consequence of this is that **any pre-acquisition retained earnings of a subsidiary are not aggregated with the parent's retained earnings** in the consolidated statement of financial position. The figure of consolidated retained earnings comprises the retained earnings of the parent plus the **post-acquisition retained earnings only of subsidiaries**. The post-acquisition retained earnings are simply retained earnings now less retained earnings at acquisition.

**Example: Goodwill and pre-acquisition profits**

Sing Co acquired all of the ordinary shares of Wing Co on 31 March when the draft statements of financial position of each company were as follows:

**SING CO**

<table>
<thead>
<tr>
<th>Statement of Financial Position as at 31 March</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Investment in 50,000 shares of Wing Co at cost</td>
<td>$80,000</td>
</tr>
<tr>
<td>Current assets</td>
<td>$40,000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>$120,000</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>$75,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>$45,000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>$120,000</td>
</tr>
</tbody>
</table>
Prepare the consolidated statement of financial position as at 31 March.

Solution

The technique to adopt here is to produce a new working: 'Goodwill'. A proforma working is set out below:

\[
\text{Goodwill} \\
\text{Consideration transferred} \quad X \\
\text{Net assets acquired as represented by:} \\
\text{Ordinary share capital} \quad \times \\
\text{Retained earnings on acquisition} \quad \times \\
\text{Goodwill} \quad (X) \\
\text{Applying this to our example the working will look like this:} \\
\text{Consideration transferred} \quad 80 000 \\
\text{Net assets acquired as represented by:} \\
\text{Ordinary share capital} \quad 50 000 \\
\text{Retained earnings on acquisition} \quad 10 000 \\
\text{Goodwill} \quad (60 000) \\
\text{SING CO} \\
\text{CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 31 MARCH} \\
\text{Assets} \\
\text{Non-current assets} \\
\text{Goodwill arising on consolidation (W)} \quad 20 000 \\
\text{Current assets (40 000 + 60 000)} \quad 100 000 \\
\text{120 000} \\
\text{Equity} \\
\text{Ordinary shares} \quad 75 000 \\
\text{Retained earnings} \quad 45 000 \\
\text{120 000} \\
\]

4.3 Goodwill and non-controlling interest

Now let us look at what would happen if Sing Co had obtained less than 100% of the shares of Wing Co.

If Sing Co had paid $70 000 for 40 000 shares in Wing Co (80%), the goodwill working could be shown as follows:

\[
\text{Consideration transferred} \quad 70 000 \\
\text{Net assets acquired (60 000 × 80%)} \quad (48 000) \\
\text{Goodwill} \quad 22 000 \\
\]

More correctly, the goodwill calculation should include the non-controlling interest. We'll assume that it is group policy to measure the NCI as a proportion of net assets in the subsidiary.
Therefore:

\[
\begin{align*}
\text{Consideration transferred} & \quad \$70\,000 \\
\text{Non-controlling interest at acquisition (60\,000 \times 20\%)} & \quad 12\,000 \\
\text{Net assets acquired} & \quad (60\,000) \\
\text{Goodwill} & \quad 22\,000
\end{align*}
\]

Note that the goodwill is the same – it is just calculated in a slightly different way, by dealing with the whole of Wing Co rather than just the 80% acquired by Sing Co.

4.4 Non-controlling interest at fair value

As we have seen, IFRS 3 gives companies the option of valuing the non-controlling interest (NCI) at fair value. The thinking behind this is that the non-controlling interest also owns some of the goodwill in the subsidiary, and that the traditional method of consolidation does not show this goodwill.

IFRS 3 suggests that the closest approximation to fair value will be the market price of the shares held by non-controlling shareholders just before acquisition by the parent.

Continuing our example above, we will assume that the market price of the shares was $1.25. The goodwill calculation will then be as follows:

\[
\begin{align*}
\text{Consideration transferred} & \quad \$70\,000 \\
\text{Non-controlling interest at acquisition (10\,000 \times \$1.25)} & \quad 12\,500 \\
\text{Net assets acquired} & \quad (48\,000) \\
\text{Goodwill} & \quad 22\,500
\end{align*}
\]

Goodwill (total $22,500) is $500 higher than the goodwill calculated by measuring the non-controlling interest at its share of the net assets of the subsidiary. This $500 represents the goodwill attributable to the non-controlling interest. This can be seen to better effect if the calculation is laid out slightly differently, as follows:

\[
\begin{align*}
\text{Group NCI} & \quad \$ \quad \$ \\
\text{Consideration transferred/fair value of NCI (10\,000 \times \$1.25)} & \quad 70\,000 \quad 12\,500 \\
\text{Net assets at acquisition – Group/NCI share} & \quad (48\,000) \quad (12\,000) \\
\text{Goodwill} & \quad 22\,000 \quad 500
\end{align*}
\]

4.5 Non-controlling interest at year end

As we have seen, the non-controlling interest at the year end is measured as:

\[
\begin{align*}
\text{NCI at acquisition} & \quad \times \\
\text{NCI share of post-acquisition profits of subsidiary} & \quad \times \\
\text{NCI share of post-acquisition profits of subsidiary} & \quad \times
\end{align*}
\]

Where the non-controlling interest is measured as a proportion of the net assets of the subsidiary, a simpler way to calculate the NCI at a given date is by taking the NCI’s share of the net assets of the subsidiary at that date.

Where the non-controlling interest is measured at fair value at acquisition, an alternative calculation of the NCI at a given reporting date is:

\[
\begin{align*}
\text{NCI share of net assets of S at reporting date} & \quad \times \\
\text{NCI goodwill on acquisition} & \quad \times
\end{align*}
\]

Example: Consolidated statement of financial position

P acquired 75% of the 50,000 shares in S on 1 January 20X7 when S had retained earnings of $15,000. The market price of S’s shares just before the date of acquisition was $1.60. P values non-controlling interest at fair value. Goodwill is not impaired.
The statements of financial position of P and S at 31 December 20X7 were as follows:

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>60 000</td>
<td>50 000</td>
</tr>
<tr>
<td>Shares in S</td>
<td>68 000</td>
<td>-</td>
</tr>
<tr>
<td>Current assets</td>
<td>52 000</td>
<td>35 000</td>
</tr>
<tr>
<td>Share capital</td>
<td>100 000</td>
<td>50 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>70 000</td>
<td>25 000</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>10 000</td>
<td>10 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>180 000</strong></td>
<td><strong>85 000</strong></td>
</tr>
</tbody>
</table>

Prepare the consolidated statement of financial position of the P Group as at 31 December 20X7.

**Solution**

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>110 000</td>
</tr>
<tr>
<td>Goodwill (W1)</td>
<td>23 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>87 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>220 000</strong></td>
</tr>
</tbody>
</table>

| **Equity and liabilities** |       |
| Equity attributable to the owners of P |       |
| Share capital | 100 000 |
| Retained earnings (W2) | 177 500 |
| **Total equity** | **200 000** |
| Current liabilities | 20 000 |
| **Total equity and liabilities** | **220 000** |

**Workings**

1. **Goodwill**

   - Consideration transferred/fair value of NCI (12 500 × $1.60) | 68 000
   - Net assets of S at acquisition (50 000 + 15 000) | (48 750)
   - Goodwill (parent and non-controlling interest) | (19 250)

2. **Retained earnings**

   - Per statement of financial position | 70 000
   - Less pre-acquisition | (15 000)
   - Group share of S (10 000 × 75%) | 7 500
   - Group retained earnings | 77 500

3. **Non-controlling interest at year end**

   - Share of net assets of S (75 000 × 25%) | 18 750
   - Goodwill (W1) | 3 750

   **Total** | **22 500**
4.6 Effect of non-controlling interest at fair value

You can see from the above example that the use of the fair value option increases goodwill and non-controlling interest by the same amount. That amount represents goodwill attributable to the shares held by non-controlling shareholders. It is not necessarily proportionate to the goodwill attributed to the parent. The parent may have paid proportionately more to acquire a controlling interest. If non-controlling interest was valued under the usual method (share of net assets) goodwill and non-controlling interest in the example above would be as follows:

\[
\begin{align*}
W1 & \quad \text{Goodwill} \\
\text{Consideration transferred} & \quad 68,000 \\
\text{Non-controlling interest ((50,000 + 15,000) × 25%)} & \quad 16,250 \\
\text{Net assets of S at acquisition (50,000 + 15,000)} & \quad 75,000 \\
\hline
\text{W3 Non-controlling interest at year end} & \quad 19,250 \\
\text{Share of net assets of S (75,000 × 25%)} & \quad 18,750
\end{align*}
\]

Compare these with goodwill and non-controlling interest in the solution above and you will see that both have been reduced by $3,750 – the goodwill attributable to the non-controlling interest. So whether non-controlling interest is valued at share of net assets or at fair value, the statement of financial position will still balance.

4.7 Impairment of goodwill

Goodwill arising on consolidation is subjected to an annual impairment review and impairment may be expressed as an amount or as a percentage. The double entry to write off the impairment is:

DEBIT Group retained earnings \quad \text{CREDIT Goodwill}

However, when non-controlling interest is valued at fair value the goodwill in the statement of financial position includes goodwill attributable to the non-controlling interest. In this case the double entry will reflect the non-controlling interest proportion based on their shareholding as follows:

DEBIT Group retained earnings \quad \text{CREDIT Goodwill}
DEBIT Non-controlling interest

In our solution above in 4.5 the non-controlling interest holds 25%. If the total goodwill of $23,000 was impaired by 20% or $4,600, the double entry for this would be:

\[
\begin{align*}
\text{DEBIT Retained earnings} & \quad 3,450 \quad \text{CREDIT Goodwill} \\
\text{DEBIT Non-controlling interest} & \quad 1,150
\end{align*}
\]

The non-controlling interest at the year end would then be $21,350.

4.8 Gain on a bargain purchase

Goodwill arising on consolidation is the difference between the cost of an acquisition plus the non-controlling interest and the value of the subsidiary’s net assets. This difference can be negative. IFRS 3 refers to this as a ‘bargain purchase’. In this situation:

(a) The acquirer should first re-assess the amounts at which it has measured both the cost of the combination and the acquiree’s identifiable net assets. This exercise should identify any errors.

(b) Any excess remaining should be recognised immediately in profit or loss.

4.9 Forms of consideration

The consideration paid by the parent for the shares in the subsidiary can take different forms and this will affect the calculation of goodwill. Here are some examples.
4.9.1 Contingent consideration

The parent acquired 60 per cent of the subsidiary’s $100m share capital on 1 Jan 20X6 for a cash payment of $150m and a further payment of $50m on 31 March 20X7 if the subsidiary’s post-acquisition profits have exceeded an agreed figure by that date.

In the financial statements for the year to 31 December 20X6 $50m will be added to the cost of the combination, discounted as appropriate.

IFRS 3 requires the acquisition-date fair value of contingent consideration to be recognised as part of the consideration for the acquiree. In an examination question students will be told the acquisition-date fair value or told how to calculate it.

The acquirer may be required to pay contingent consideration in the form of equity or of a debt instrument or cash. Contingent consideration can also be an asset, if the consideration has already been transferred and the acquirer has the right to return of some of it, if certain conditions are met.

4.9.2 Deferred consideration

An agreement may be made that part of the consideration for the combination will be paid at a future date. This consideration will therefore be discounted to its present value using the acquiring company’s cost of capital.

The parent acquired 75 per cent of the subsidiary’s 80m shares on 1 Jan 20X6. It paid $3.50 per share and agreed to pay a further $108m on 1 Jan 20X8.

The parent company’s cost of capital is 8%.

In the financial statements for the year to 31 December 20X6 the cost of the combination will be as follows:

\[
\begin{align*}
80\text{m shares} & \times 75\% \times 3.50 = 210 \\
\text{Deferred consideration:} & \\
108m & \times 1/1.08 = 100 \\
\text{Total consideration} & = 310
\end{align*}
\]

At 31 December 20X7, the cost of the combination will be unchanged but $8m will be charged to finance costs, being the unwinding of the discount on the deferred consideration.

4.9.3 Share exchange

The parent has acquired 12 000 shares in the subsidiary by issuing 5 of its own shares for every 4 shares in the subsidiary. The market value of the parent company’s shares is $6.

Cost of the combination:

\[
12,000 \times 5/4 \times 6 = 90,000
\]

Note that this is credited to the share capital of the parent company as follows:

\[
\begin{align*}
\text{DR} & \quad \text{CR} \\
\text{Investment in subsidiary} & \quad 90,000 \\
\text{Share capital} & \quad 90,000
\end{align*}
\]

4.9.4 Expenses and issue costs

Expenses of the combination, such as lawyers’ and accountants’ fees are written off as incurred. However, IFRS 3 requires that the costs of issuing equity are treated as a deduction from the proceeds of the equity issue. Share issue costs will therefore be debited to the share capital account.

4.10 Adjustments to goodwill

At the date of acquisition the parent recognises the assets, liabilities and contingent liabilities of the subsidiary at their fair value at the date when control is acquired. It may be that some of these assets or liabilities had not previously been recognised by the acquiree.
For instance, the subsidiary may have tax losses brought forward, but had not recognised these as an asset because it could not foresee future profits against which they could be offset. If it now appears that taxable profits will be forthcoming, the deferred tax asset can be recognised.

A company has acquired a 60 per cent interest in another company which has brought forward tax losses unutilised of $200 000. The tax losses can now be utilised and the tax rate is 30 per cent.

The adjustment will be:

<table>
<thead>
<tr>
<th>DR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deferred tax (subsidiary) $200 000 x 30%</td>
<td>60 000</td>
</tr>
<tr>
<td>Goodwill</td>
<td>60 000</td>
</tr>
</tbody>
</table>

### 4.11 Goodwill disclosure

IFRS 3 requires that the following are disclosed in respect of acquired goodwill arising in the period:

- A qualitative description of the factors that make up the goodwill recognised
- The acquisition-date fair value of the total consideration transferred split into each major class of consideration
- The amounts recognised at the acquisition date for each major class of assets acquired and liabilities assumed
- The amount of any gain recognised on a bargain purchase
- The amount of the non-controlling interest and the measurement basis used.

In subsequent years, a reconciliation of the carrying amount of goodwill at the beginning and end of the reporting period is required showing separately:

- Impairment losses brought forward
- Additional goodwill recognised in the period
- Impairment losses recognised in the period
- Impairment losses carried forward
- Any other changes in the carrying amount during the reporting period.

### 5 Non-controlling interest at fair value

Now we will look at a full consolidation question including non-controlling interest at fair value.

#### Question 4: Consolidated statement of financial position

The draft statements of financial position of Ping Co and Pong Co on 30 June 20X8 were as follows:

**PING CO**

<table>
<thead>
<tr>
<th>Statement of Financial Position as at 30 June 20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
</tr>
<tr>
<td>20 000 ordinary shares in Pong Co at cost</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
</tr>
<tr>
<td>Inventory</td>
</tr>
<tr>
<td>Receivables</td>
</tr>
<tr>
<td>Cash</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
Pong Co

Statement of Financial Position as at 30 June 20X8

$    $

Equity and liabilities
Equity
45 000 Ordinary shares  45 000
Revaluation surplus  12 000
Retained earnings  26 000
63 000
Current liabilities
Owed to Pong Co  8 000
Trade payables  10 000
18 000
Total equity and liabilities  81 000

Assets
Property, plant and equipment  40 000
Current assets
Inventory  8 000
Owed by Ping Co  10 000
Receivables  7 000
25 000
Total assets  65 000

Equity and liabilities
Equity
25 000 Ordinary shares  25 000
Revaluation surplus  5 000
Retained earnings  28 000
58 000
Current liabilities
Trade payables  7 000
Total equity and liabilities  65 000

Ping Co acquired its investment in Pong Co on 1 July 20X7 when the retained earnings of Pong Co stood at $6 000. The agreed consideration was $30 000 cash and a further $10 000 on 1 July 20X9 if Pong Co attained certain profit targets. Ping Co’s cost of capital is 7%. Pong Co has an internally-developed brand name – ‘Pongo’ – which was valued at $5 000 at the date of acquisition. There have been no changes in the share capital or revaluation surplus of Pong Co since that date. At 30 June 20X8 Pong Co had invoiced Ping Co for goods to the value of $2 000 which had not been received by Ping Co.

There is no impairment of goodwill. It is group policy to value non-controlling interest at full fair value. At the acquisition date the non-controlling interest was valued at $9 000.

Prepare the consolidated statement of financial position of Ping Co as at 30 June 20X8.

(The answer is at the end of the chapter)
6 Intra-group trading

Section overview
- We have already come across cases where one company in a group engages in trading with another group company. Any profit made is eliminated on consolidation.

6.1 Unrealised profit

Any receivable/payable balances outstanding between parent and subsidiary are cancelled on consolidation. No further problem arises if all such intra-group transactions are undertaken at cost, without any mark-up for profit.

However, each company in a group is a separate trading entity and may wish to treat other group companies in the same way as any other customer. In this case, a company (say A Co) may buy goods at one price and sell them at a higher price to another group company (B Co). The accounts of A Co will quite properly include the profit earned on sales to B Co; and similarly B Co's statement of financial position will include inventories at their cost to B Co, i.e. at the amount at which they were purchased from A Co.

This gives rise to two problems:

(a) Although A Co makes a profit as soon as it sells goods to B Co, the group does not make a sale or achieve a profit until an outside customer buys the goods from B Co.

(b) Any purchases from A Co which remain unsold by B Co at the year end will be included in B Co's inventory. Their value in the statement of financial position will be their cost to B Co, which is not the same as their cost to the group.

The objective of consolidated accounts is to present the financial position of several connected companies as that of a single entity, the group. This means that in a consolidated statement of financial position the only profits recognised should be those earned by the group in providing goods or services to outsiders. These are referred to as realised profits. Similarly, inventory in the consolidated statement of financial position should be valued at cost to the group.

Suppose that a holding company P Co buys goods for $1 600 and sells them to a wholly owned subsidiary S Co for $2 000. The goods are in S Co's inventory at the year end and appear in S Co's statement of financial position at $2 000. In this case, P Co will record a profit of $400 in its individual accounts, but from the group's point of view the figures are:

<table>
<thead>
<tr>
<th>Cost</th>
<th>$1 600</th>
</tr>
</thead>
<tbody>
<tr>
<td>External sales</td>
<td>nil</td>
</tr>
<tr>
<td>Closing inventory at cost</td>
<td>$1 600</td>
</tr>
<tr>
<td>Profit / loss</td>
<td>nil</td>
</tr>
</tbody>
</table>

If we add together the figures for retained earnings and inventory in the individual statements of financial position of P Co and S Co the resulting figures for consolidated retained earnings and consolidated inventory will each be overstated by $400. A consolidation adjustment is therefore necessary as follows:

DEBIT Group retained earnings
CREDIT Group inventory (statement of financial position)

with the amount of profit unrealised by the group.
Question 5: Unrealised profit

P Co acquired all the 30,000 shares in S Co one year ago when the reserves of S Co stood at $10,000. Draft statements of financial position for each company are as follows:

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>$80,000</td>
<td>$40,000</td>
</tr>
<tr>
<td>Investment in S Co at cost</td>
<td>$46,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>$126,000</td>
<td>$70,000</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>$100,000</td>
<td>$30,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>$45,000</td>
<td>$22,000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>$145,000</td>
<td>$52,000</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td>$21,000</td>
<td>$18,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$166,000</td>
<td>$70,000</td>
</tr>
</tbody>
</table>

During the year S Co sold goods to P Co for $50,000, the profit to S Co being 20% of selling price. At the end of the reporting period, $15,000 of these goods remained unsold in the inventories of P Co. At the same date, P Co owed S Co $12,000 for goods bought and this debt is included in the trade payables of P Co and the receivables of S Co. The goodwill arising on consolidation has been impaired. The amount of the impairment is $1,500.

Required

Prepare a draft consolidated statement of financial position for P Co.

(The answer is at the end of the chapter)

6.2 Non-controlling interests in unrealised intra-group profits

A further problem occurs where a subsidiary which is **not wholly owned** is involved in **intra-group trading** within the group. If a subsidiary S Co is 75% owned and sells goods to the parent for $16,000 cost plus $4,000 profit, i.e. for $20,000 and if these items are unsold by P Co at the end of the reporting period, the ‘unrealised’ profit of $4,000 earned by S Co and charged to P Co will be partly owned by the non-controlling interest of S Co. As far as the non-controlling interest of S Co is concerned, their share (25% of $4,000) amounting to $1,000 of profit on the sale of goods would appear to have been fully realised. It is only the group that has not yet made a profit on the sale.

The correct treatment of these intra-group profits is to remove the whole profit, charging the non-controlling interest with their proportion.

**Formula to learn**

<table>
<thead>
<tr>
<th>Action</th>
<th>Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debit</td>
<td>Group retained earnings</td>
</tr>
<tr>
<td>Debit</td>
<td>Non-controlling interest</td>
</tr>
<tr>
<td>Credit</td>
<td>Inventory (statement of financial position)</td>
</tr>
</tbody>
</table>
Example: Non-controlling interests and intra-group profits

P Co has owned 75% of the 100 000 shares of S Co since the incorporation of that company. During the year to 31 December 20X2, S Co sold goods costing $16 000 to P Co at a price of $20 000 and these goods were still unsold by P Co at the end of the year. Draft statements of financial position of each company at 31 December 20X2 were as follows:

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>125 000</td>
<td>120 000</td>
</tr>
<tr>
<td>Investment: 75 000 shares in S Co at cost</td>
<td>75 000</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>200 000</td>
<td>120 000</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventories</td>
<td>50 000</td>
<td>48 000</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>20 000</td>
<td>16 000</td>
</tr>
<tr>
<td></td>
<td>70 000</td>
<td>64 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>270 000</strong></td>
<td><strong>184 000</strong></td>
</tr>
</tbody>
</table>

|                      |       |       |
| **Equity and liabilities** |     |     |
| **Equity**            |       |       |
| Ordinary shares       | 80 000 | 100 000 |
| Retained earnings     | 150 000 | 60 000 |
|                      | 230 000 | 160 000 |
| Current liabilities   | 40 000 | 24 000 |
| **Total equity and liabilities** | **270 000** | **184 000** |

Required

Prepare the consolidated statement of financial position of P Co at 31 December 20X2. It is the group policy to measure the non-controlling interest at its proportionate share of the subsidiary's net assets.

**Solution**

The profit earned by S Co but unrealised by the group is $4 000 of which $3 000 (75%) is attributable to the group and $1 000 (25%) to the non-controlling interest. Remove the whole of the profit loading, charging the non-controlling interest with their proportion.

\[
P C o \quad S C o \\
\$ \quad \$ \\
Retained earnings & 150 000 & 60 000 \\
Less unrealised profit & (4 000) & (4 000) \\
Share of S Co: $56 000 \times 75\% & 42 000 & 39 000 \\
\]

\[
P C o \quad S C o \\
\$ \quad \$ \\
Non-controlling interest & 160 000 & 156 000 \\
S Co’s net assets (184 000 – 24 000) & & \\
Unrealised profit & (4 000) & (4 000) \\
\]

P Co

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X2**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>245 000</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
</tr>
<tr>
<td>Inventories $(50 000 + 48 000 – 4 000)</td>
<td>94 000</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>36 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>375 000</strong></td>
</tr>
</tbody>
</table>
### 7 Intra-group sales of non-current assets

**Section overview**
- As well as engaging in trading activities with each other, group companies may on occasion wish to transfer non-current assets.

#### 7.1 Accounting treatment

In their individual accounts the entities concerned will treat the transfer just like a sale between unconnected parties: the selling company will record a profit or loss on sale, while the purchasing company will record the asset at the amount paid to acquire it, and will use that amount as the basis for calculating depreciation.

On consolidation, the usual ‘group entity’ principle applies. The consolidated statement of financial position must show assets at their net carrying amount (written down value) to the group, and any depreciation charged must be based on cost to the group. Two consolidation adjustments will usually be needed to achieve this.

(a) An adjustment to alter retained earnings and non-current assets net carrying amount so as to remove any element of unrealised profit or loss. This is similar to the adjustment required in respect of unrealised profit in inventory.

(b) An adjustment to alter retained earnings and accumulated depreciation is made so that consolidated depreciation is based on the asset’s original cost to the group.

In practice, these steps are combined so that the retained earnings of the company making the unrealised profit are debited with the unrealised profit less the additional depreciation.

The double entry is as follows.

(a) Sale by parent

<table>
<thead>
<tr>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group retained earnings</td>
<td>Non-current assets</td>
</tr>
</tbody>
</table>

with the profit on disposal, less the additional depreciation.

(b) Sale by subsidiary

<table>
<thead>
<tr>
<th>Debit</th>
<th>Debit</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group retained earnings</td>
<td>Non-controlling interest</td>
<td>Non-current assets</td>
</tr>
<tr>
<td></td>
<td>(P’s share of S)</td>
<td></td>
</tr>
</tbody>
</table>

with the profit on disposal, less additional depreciation.
**Example: Intra-group sale of non-current assets**

P Co owns 60% of S Co and on 1 January 20X1 S Co sells plant with a net carrying amount of $10 000 to P Co for $12 500. The companies prepare accounts to 31 December 20X1 and the balances on their retained earnings at that date are:

- **P Co** after charging depreciation of 10% on plant: $27 000
- **S Co** including profit on sale of plant: $18 000

**Required**

Show the working for consolidated retained earnings.

**Solution**

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per question</td>
<td>$27 000</td>
<td>$18 000</td>
</tr>
<tr>
<td>Disposal of plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit</td>
<td></td>
<td>(2 500)</td>
</tr>
<tr>
<td>Depreciation: 10% × $2 500</td>
<td>250</td>
<td></td>
</tr>
<tr>
<td>Share of S Co: $15 750 × 60%</td>
<td>9 450</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$36 450</td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

1. The non-controlling interest in the retained earnings of S Co is 40% × $15 750 = $6 300.
2. The asset is written down to its net carrying amount at the date of transfer and depreciation on the 'profit' element is removed. The group profit for the year is thus reduced by a net (($2 500 – $250) × 60%) = $1 350.

---

**8 Summary: consolidated statement of financial position**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>To show the net assets which P controls and the ownership of those assets.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net assets</strong></td>
<td>Always 100% P plus 100% S providing P holds a majority of voting rights.</td>
</tr>
<tr>
<td><strong>Share capital</strong></td>
<td>P only.</td>
</tr>
<tr>
<td><strong>Reason</strong></td>
<td>Simply reporting to the parent company’s shareholders in another form.</td>
</tr>
<tr>
<td><strong>Retained earnings</strong></td>
<td>100% P plus group share of post-acquisition retained earnings of S less consolidation adjustments.</td>
</tr>
<tr>
<td><strong>Reason</strong></td>
<td>To show the extent to which the group actually owns total assets less liabilities.</td>
</tr>
<tr>
<td><strong>Non-controlling interest</strong></td>
<td>NCI share of S’s consolidated net assets, or fair value at acquisition plus share of subsequent profits.</td>
</tr>
<tr>
<td><strong>Reason</strong></td>
<td>To show the equity in a subsidiary not attributable to the parent.</td>
</tr>
</tbody>
</table>
9 Acquisition of a subsidiary during its accounting period

Section overview
- When a parent company acquires a subsidiary during its accounting period the only accounting entries made at the time will be those recording the cost of acquisition in the parent company’s books.

9.1 Accounting problem

As we have already seen, at the end of the accounting year it will be necessary to prepare consolidated accounts. The subsidiary company’s accounts to be consolidated will show the subsidiary’s profit or loss for the whole year. For consolidation purposes, however, it will be necessary to distinguish between:

(a) Profits earned before acquisition
(b) Profits earned after acquisition

In practice, a subsidiary’s profit may not accrue evenly over the year; for example, the subsidiary might be engaged in a trade, such as toy sales, with marked seasonal fluctuations. Nevertheless, the assumption can be made that profits accrue evenly whenever it is impracticable to arrive at an accurate split of pre- and post-acquisition profits.

Once the amount of pre-acquisition profit has been established the appropriate consolidation workings (goodwill, retained earnings) can be produced.

It is worthwhile to summarise what happens on consolidation to the retained earnings figures extracted from a subsidiary’s statement of financial position. Suppose the accounts of S Co, a 60% subsidiary of P Co, show retained earnings of $20 000 at the end of the reporting period, of which $14 000 were earned prior to acquisition. The figure of $20 000 will appear in the consolidated statement of financial position as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-controlling interests working: their share of total retained earnings at the end of the reporting period (40% × $20 000)</td>
<td>8 000</td>
</tr>
<tr>
<td>Goodwill working: group share of pre-acquisition retained earnings (60% × $14 000)</td>
<td>8 400</td>
</tr>
<tr>
<td>Consolidated retained earnings working: group share of post-acquisition retained earnings (60% × $6 000)</td>
<td>3 600</td>
</tr>
<tr>
<td></td>
<td>20 000</td>
</tr>
</tbody>
</table>

Question 6: Acquisition

Hinge Co acquired 80% of the 20,000 ordinary shares of Singe Co on 1 April 20X5. On 31 December 20X4 Singe Co’s accounts showed retained earnings of $19 000. The statements of financial position of the two companies at 31 December 20X5 are set out below. Neither company has paid any dividends during the year. Non-controlling interest should be valued at full fair value. The goodwill attributable to the non-controlling interest is valued at $3 000.

You are required to prepare the consolidated statement of financial position of Hinge Co at 31 December 20X5. There has been no impairment of goodwill.
**HINGE CO**

**STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X5**

<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>32 000</td>
</tr>
<tr>
<td>16 000 ordinary shares in Singe Co</td>
<td>50 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>82 000</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td>85 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>167 000</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>100 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>47 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>147 000</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td>20 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>167 000</td>
</tr>
</tbody>
</table>

**SINGE CO**

**STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X5**

<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>30 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>43 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>73 000</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>10 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>43 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>53 000</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td>20 000</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>73 000</td>
</tr>
</tbody>
</table>

(The answer is at the end of the chapter)

---

**Example: Pre-acquisition losses of a subsidiary**

As an illustration of the entries arising when a subsidiary has pre-acquisition losses, suppose P Co acquired all 50 000 ordinary shares in S Co for $20 000 on 1 January 20X1 when there was a debit balance of $35 000 on S Co’s retained earnings. In the years 20X1 to 20X4 S Co makes profits of $40 000 in total, leaving a credit balance of $5 000 on retained earnings at 31 December 20X4. P Co’s retained earnings at the same date are $70 000.

**Solution**

The consolidation workings would appear as follows:

1. **Goodwill**

   
<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration transferred</td>
<td>20 000</td>
</tr>
<tr>
<td>Net assets acquired as represented by</td>
<td></td>
</tr>
<tr>
<td>Ordinary share capital</td>
<td>50 000</td>
</tr>
<tr>
<td>Retained earnings (35 000)</td>
<td>(15 000)</td>
</tr>
<tr>
<td><strong>Goodwill</strong></td>
<td>5 000</td>
</tr>
</tbody>
</table>
10 Fair values in acquisition accounting

Section overview
- An entity should adjust the subsidiary’s accounts before consolidation in order to reflect the fair values of the assets and liabilities acquired.

10.1 Goodwill

To understand the importance of fair values in the acquisition of a subsidiary consider again what we mean by goodwill.

Definition

**Goodwill.** Any excess of the consideration transferred plus the non-controlling interest over the fair value of the identifiable assets and liabilities of the investee as at the date of the acquisition.

The statement of financial position of a subsidiary at the date it is acquired may not be a guide to the fair value of its net assets. For example, the market value of a freehold building may have risen greatly since it was acquired, but it may appear in the statement of financial position at historical cost less accumulated depreciation.

10.2 What is fair value?

Fair value is defined as follows by IFRS 3 and various other standards – it is an important definition.

Definition

**Fair value.** The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

We will look at the requirements of IFRS 3 regarding fair value in more detail below. First, let us look at some practical matters.

10.3 Fair value adjustment calculations

Until now we have calculated goodwill based on the book value of net assets of the subsidiary. If this calculation is to comply with the definition above we must ensure that the book value of the subsidiary’s net assets is the same as their fair value.
There are two possible ways of achieving this:

(a) The subsidiary might incorporate any necessary revaluations in its own books of account. In this case, we can proceed directly to the consolidation, taking asset values and reserves figures straight from the subsidiary's statement of financial position.

(b) The revaluations may be made as a consolidation adjustment without being incorporated in the subsidiary's books. In this case, we must make the necessary adjustments to the subsidiary's statement of financial position as a working. Only then can we proceed to the consolidation.

Note. Remember that when depreciating assets are revalued there may be a corresponding alteration in the amount of depreciation charged and accumulated.

**Example: Fair value adjustments**

P Co acquired 75% of the ordinary shares of S Co on 1 September 20X5. At that date the fair value of S Co's non-current assets was $23,000 greater than their carrying amount, and the balance of retained earnings was $21,000. The statements of financial position of both companies at 31 August 20X6 are given below. S Co has not incorporated any revaluation in its books of account. Non-controlling interest is valued at full fair value which was deemed to be $18,000 at the acquisition date.

**P Co**

<table>
<thead>
<tr>
<th>STATEMENT OF FINANCIAL POSITION AS AT 31 AUGUST 20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
</tr>
<tr>
<td>Assets</td>
</tr>
<tr>
<td>Non-current assets</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
</tr>
<tr>
<td>Investment in S Co at cost</td>
</tr>
<tr>
<td>Current assets</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
</tr>
<tr>
<td>Equity and liabilities</td>
</tr>
<tr>
<td>Equity</td>
</tr>
<tr>
<td>80,000 Ordinary shares</td>
</tr>
<tr>
<td>Retained earnings</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
</tr>
</tbody>
</table>

**S Co**

<table>
<thead>
<tr>
<th>STATEMENT OF FINANCIAL POSITION AS AT 31 AUGUST 20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
</tr>
<tr>
<td>Assets</td>
</tr>
<tr>
<td>Property, plant and equipment</td>
</tr>
<tr>
<td>Current assets</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
</tr>
<tr>
<td>Equity and liabilities</td>
</tr>
<tr>
<td>Equity</td>
</tr>
<tr>
<td>20,000 Ordinary shares</td>
</tr>
<tr>
<td>Retained earnings</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
</tr>
</tbody>
</table>

If S Co had revalued its non-current assets at 1 September 20X5, an addition of $3,000 would have been made to the depreciation charged for 20X5/20X6.

**Required**

Prepare P Co's consolidated statement of financial position as at 31 August 20X6.
Solution

P CO CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 31 AUGUST 20X6

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment ((63 000 + 48 000)^*)</td>
<td>111 000</td>
<td></td>
</tr>
<tr>
<td>Goodwill ((W1))</td>
<td>5 000</td>
<td></td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>116 000</td>
<td>125 000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>241 000</td>
</tr>
<tr>
<td>Equity and liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>80 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings ((W2))</td>
<td>108 750</td>
<td></td>
</tr>
<tr>
<td></td>
<td>188 750</td>
<td></td>
</tr>
<tr>
<td>Non-controlling interest ((W3))</td>
<td>22 250</td>
<td>211 000</td>
</tr>
<tr>
<td>Current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>241 000</td>
<td></td>
</tr>
</tbody>
</table>

\(^* (28 000 + 23 000 – 3 000)\)

1 Goodwill

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>NCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration transferred / fair value of NCI</td>
<td>51 000</td>
<td>18 000</td>
</tr>
<tr>
<td>Net assets acquired as represented by</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary share capital</td>
<td>20 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>21 000</td>
<td></td>
</tr>
<tr>
<td>Fair value adjustment</td>
<td>23 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>64 000</td>
<td></td>
</tr>
<tr>
<td>Group/NCI share</td>
<td>(48 000)</td>
<td>(16 000)</td>
</tr>
<tr>
<td>Goodwill</td>
<td>3 000</td>
<td>2 000</td>
</tr>
</tbody>
</table>

2 Retained earnings

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per question</td>
<td>96 000</td>
<td>41 000</td>
</tr>
<tr>
<td>Pre-acquisition profits</td>
<td>(21 000)</td>
<td></td>
</tr>
<tr>
<td>Depreciation adjustment</td>
<td>(3 000)</td>
<td></td>
</tr>
<tr>
<td>Post-acquisition S Co</td>
<td>17 000</td>
<td></td>
</tr>
<tr>
<td>Group share in S Co</td>
<td></td>
<td></td>
</tr>
<tr>
<td>((17 000 \times 75%))</td>
<td>12 750</td>
<td></td>
</tr>
<tr>
<td>Group retained earnings</td>
<td>108 750</td>
<td></td>
</tr>
</tbody>
</table>

3 Non-controlling interest at reporting date

<table>
<thead>
<tr>
<th></th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>S Co's net assets ((71 000 – 10 000))</td>
<td>61 000</td>
</tr>
<tr>
<td>Fair value adjustment ((23 000 – 3 000))</td>
<td>20 000</td>
</tr>
<tr>
<td>(\times 25%))</td>
<td>20 250</td>
</tr>
<tr>
<td>Goodwill</td>
<td>2 000</td>
</tr>
<tr>
<td></td>
<td>22 250</td>
</tr>
</tbody>
</table>
Question 7: Fair value

An asset is recorded in S Co’s books at its historical cost of $4,000. On 1 January 20X5 P Co bought 80% of S Co’s equity. Its directors attributed a fair value of $3,000 to the asset as at that date. It had been depreciated for two years out of an expected life of four years on the straight line basis. There was no expected residual value. On 30 June 20X5 the asset was sold for $2,600. What is the profit or loss on disposal of this asset to be recorded in S Co’s accounts and in P Co’s consolidated accounts for the year ended 31 December 20X5?

(The answer is at the end of the chapter)

10.4 IFRS 3 Fair values

IFRS 3 sets out general principles for arriving at the fair values of a subsidiary’s assets and liabilities. The acquirer should recognise the acquiree’s identifiable assets acquired and liabilities assumed at the acquisition date, if they meet the definitions of assets and liabilities in the Conceptual Framework for Financial Reporting. This means that:

(a) In the case of an asset it is probable that any associated future economic benefits will flow to the acquirer, and its fair value can be measured reliably.

(b) In the case of a liability it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and its fair value can be measured reliably.

However, IFRS 3 sets out a number of exceptions to these general principles. The ones which you are most likely to meet in the exam are dealt with below.

The acquiree’s identifiable assets and liabilities might include assets and liabilities not previously recognised in the acquiree’s financial statements. For example, a tax benefit arising from the acquiree’s tax losses that was not recognised by the acquiree may be recognised by the group if the acquirer has future taxable profits against which the unrecognised tax benefit can be applied.

10.4.1 Restructuring and future losses

An acquirer should not recognise liabilities for future losses or other costs expected to be incurred as a result of the business combination.

IFRS 3 explains that a plan to restructure a subsidiary following an acquisition is not a present obligation of the acquiree at the acquisition date. Neither does it meet the definition of a contingent liability. Therefore, an acquirer should not recognise a liability for such a restructuring plan as part of allocating the cost of the combination unless the subsidiary was already committed to the plan before the acquisition.

This prevents creative accounting. An acquirer cannot set up a provision for restructuring or future losses of a subsidiary and then release this to profit or loss in subsequent periods in order to reduce losses or smooth profits.

10.4.2 Intangible assets

The acquiree may have intangible assets, such as development expenditure. These can be recognised separately from goodwill only if they are identifiable. An intangible asset is identifiable only if it:

(a) Is separable, i.e. capable of being separated or divided from the company and sold, transferred, or exchanged, either individually or together with a related contract, asset or liability, or

(b) Arises from contractual or other legal rights.

IFRS 3 explains that an acquirer recognises acquired identifiable intangible assets (such as internally generated brand names, patents or customer relationships), that the acquiree did not recognise as an asset in its financial statements. As the acquiring company is giving valuable consideration for these assets, they are now recognised as assets in the consolidated financial statements.
10.4.3 Cost of a business combination

The general principle is that the acquirer should measure the cost of a business combination as the total of the fair values, at the date of acquisition, of assets transferred by the acquirer, liabilities incurred or assumed, and equity instruments issued by the acquirer, in exchange for control of the acquiree.

Sometimes all or part of the cost of an acquisition is deferred (i.e., does not become payable immediately). The fair value of any deferred consideration is determined by discounting the amounts payable to their present value at the date of exchange.

Where equity instruments (e.g. ordinary shares) of a quoted company form part of the cost of a combination, the published price at the date of exchange normally provides the best evidence of the instrument’s fair value and except in rare circumstances this should be used.

Future losses or other costs expected to be incurred as a result of a combination should not be included in the cost of the combination.

Costs attributable to the combination, for example professional fees and administrative costs, should not be included: they are recognised as an expense when incurred. Costs of issuing debt instruments and equity shares should reduce the proceeds from the debt issue or the equity issue.

Question 8: Goodwill on consolidation

On 1 September 20X7 Tyzo Co acquired 6 million of the 8 million shares in Kono Co at $2.00 per share. At that date Kono Co produced the following interim financial statements.

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment (note 1)</td>
<td>16.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Inventories (note 2)</td>
<td>4.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Receivables</td>
<td>2.9</td>
<td>4.0</td>
</tr>
<tr>
<td>Cash in hand</td>
<td>1.2</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24.1</td>
<td>24.1</td>
</tr>
</tbody>
</table>

Notes

1. The property, plant and equipment of Kono Co had a combined market value of $16.6 million at 1 September 20X7.

2. The inventories of Kono Co which were shown in the interim financial statements are raw materials. They would have cost $4.2 million to replace at 1 September 20X7.

3. On 1 September 20X7 Tyzo Co took a decision to rationalise the group so as to integrate Kono Co. The costs of the rationalisation were estimated to total $3.0 million and the process was due to start on 1 March 20X8. No provision for these costs has been made in the financial statements given above.

4. Tyzo Group values the non-controlling interest using the proportion of net assets method.

Required

Compute the goodwill on consolidation of Kono Co that will be included in the consolidated financial statements of the Tyzo Co group for the year ended 31 December 20X7, explaining your treatment of the items mentioned above. You should refer to the provisions of relevant accounting standards.

(The answer is at the end of the chapter)

Example: Cost of a business combination

Rather than pay cash for Kono Co’s shares, Tyzo has funded the acquisition by issuing 4.5m of its own shares to Kono Co’s shareholders.

Tyzo’s shares have a market value of $3. The costs of the share issue amounted to $500 000 and Tyzo paid a total of $750 000 to lawyers and accountants to carry out the combination.

Calculate the goodwill.
## Solution

<table>
<thead>
<tr>
<th>Consideration</th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share issue (4.5m × $3)</td>
<td>13.5</td>
</tr>
<tr>
<td>Net assets acquired (as above)</td>
<td>(9.9)</td>
</tr>
<tr>
<td>Goodwill</td>
<td>3.6</td>
</tr>
</tbody>
</table>

*Note. The share issue costs are debited to share capital and the $750 000 expenses are written off.*
Key chapter points

- IFRS 10 sets out the procedures to prepare a consolidated statement of financial position.
- The basic procedure involves:
  - Adding the assets and liabilities of the parent and subsidiary on a line by line basis
  - Cancelling any intercompany amounts
  - Eliminating the parent's investment in the subsidiary and replacing it with the subsidiary's net assets
  - Including the share capital of the parent only
  - Calculating group reserves as the parent's reserves plus the group share of post-acquisition reserves of the subsidiary.
- Where the parent does not hold 100% of the shares in the subsidiary, the non-controlling interest must be represented.
- IFRS 3 allows two alternative ways of measuring the non-controlling interest at acquisition:
  (a) As a proportionate share of the fair value of the subsidiary's net assets; or
  (b) At full (or fair) value (usually based on the market value of the shares held by the non-controlling interest).
- The non-controlling interest reported in the consolidated statement of financial position at subsequent reporting dates is increased by the non-controlling interest’s share of profits made by the subsidiary since acquisition.
- Goodwill arises where the consideration transferred by the parent is not equal to the group share of net assets at acquisition.
- Goodwill is calculated as consideration plus NCI less the fair value of the net assets of the subsidiary at acquisition.
- Fair value adjustments may therefore be required to the subsidiary’s accounts before consolidation.
- Goodwill arising on consolidation is not amortised but is subjected to an annual impairment review and any loss is debited to group reserves.
- ‘Negative goodwill’ (a bargain purchase) is reassessed and then credited to profit or loss immediately.
- Unrealised profits made on the sale of goods or non-current assets to group companies must be eliminated on consolidation.
1. Major Co, which makes up its accounts to 31 December, has an 80% owned subsidiary Minor Co. Minor Co sells goods to Major Co at a mark-up on cost of 33.3%. At 31 December 20X8, Major had $12,000 of such goods in its inventory and at 31 December 20X9 had $15,000 of such goods in its inventory.

What is the amount by which the consolidated profit attributable to Major Co’s shareholders should be adjusted in respect of the above?

Ignore taxation
A $600 debit
B $750 credit
C $800 credit
D $1,000 debit

The following information is relevant for questions 2 to 4

On 1 January 20X0 Alpha purchased 80,000 of the 100,000 ordinary shares in Beta for $180,000. At that date Beta’s retained earnings amounted to $90,000 and the fair values of Beta’s assets at acquisition were equal to their book values.

Three years later, on 31 December 20X2, the statements of financial position of the two companies were:

<table>
<thead>
<tr>
<th></th>
<th>Alpha</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sundry net assets</td>
<td>$230,000</td>
<td>$260,000</td>
</tr>
<tr>
<td>Shares in Beta</td>
<td>$180,000</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>$410,000</td>
<td>$260,000</td>
</tr>
<tr>
<td>Share capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>$200,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>$210,000</td>
<td>$160,000</td>
</tr>
<tr>
<td></td>
<td>$410,000</td>
<td>$260,000</td>
</tr>
</tbody>
</table>

The share capital of Beta has remained unchanged since 1 January 20X0. The non-controlling interest is measured at full fair value and goodwill attributable to the non-controlling interest at acquisition was $4,000. There was no impairment of goodwill.

2. What amount should appear in the group’s consolidated statement of financial position at 31 December 20X2 for goodwill?
   A $14,000
   B $25,000
   C $28,000
   D $32,000

3. What amount should appear in the group’s consolidated statement of financial position at 31 December 20X2 for non-controlling interest?
   A $32,000
   B $48,000
   C $52,000
   D $56,000

4. What amount should appear in the group’s consolidated statement of financial position at 31 December 20X2 for retained earnings?
   A $245,000
   B $266,000
   C $338,000
   D $370,000
5 Strachey owns 75% of the equity shares in Bell. At 31 July 20X2, the inventory of Strachey was valued at $420 000 and included goods costing $60 000 that it had purchased from Bell at cost plus 20%.

At 31 July 20X2, inventories were valued at $445 000 in the consolidated statement of financial position of the Strachey group.

At 31 July 20X2, what is the inventory figure in the statement of financial position of Bell?

A $13 000  
B $15 000  
C $35 000  
D $37 000

6 The summarised statements of financial position of Falcon and Kestrel at 31 December 20X8 were as follows:

<table>
<thead>
<tr>
<th></th>
<th>Falcon</th>
<th>Kestrel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets (at fair values)</td>
<td>$68</td>
<td>$25</td>
</tr>
<tr>
<td>Share capital</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Reserves</td>
<td>58</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>68</td>
<td>35</td>
</tr>
</tbody>
</table>

On 1 January 20X8 Falcon purchased 80% of the equity share capital of Kestrel for $24 million. The fair value of the net assets of Kestrel was $20 million at that date. The goodwill arising on consolidation was impaired by 100%. Non controlling interests are measured at the proportionate share of net assets acquired.

Calculate the amount of consolidated reserves to be included in the statement of financial position at 31 December 20X8.

A $54m  
B $62m  
C $65m  
D $70m

7 Harrow acquired 270 000 ordinary shares in Slough on 1 January 20X9 at a cost of $400 000. At that date, Slough had 300 000 ordinary $1 shares in issue and its reserves were $50 000. Non-controlling interests are measured at the proportionate share of the net assets acquired.

The amount of goodwill arising on consolidation is:

A $50 000  
B $80 000  
C $85 000  
D $130 000

8 STV owns 75% of the ordinary share capital of its subsidiary TUW. At the group’s year end, 28 February 20X7, STV’s payables include $3 600 in respect of inventories sold to it by TUW.

TUW’s receivables include $6 700 in respect of inventories sold to STV. Two days before the year end STV sent a payment of $3 100 to TUW that was not recorded by the latter until two days after the year end.

The in-transit item should be dealt with as follows in the consolidated statement of financial position at 28 February 20X7:

A $2 325 to be included as cash in transit  
B $3 100 to be added to consolidated payables  
C $3 100 to be included as cash in transit  
D $3 100 to be included as inventories in transit
9 Ploughshare acquired 80% of the equity share capital of Sword on 30 September 20X1. On 31 December 20X1, the share capital and reserves of Sword were:

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary shares</td>
<td>300</td>
</tr>
<tr>
<td>Retained earnings at 1 January 20X1</td>
<td>80</td>
</tr>
<tr>
<td>Retained profit for the year ended 31 December 20X1</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>420</td>
</tr>
</tbody>
</table>

The profits of Sword have accrued evenly throughout 20X1. Goodwill arising on the acquisition was $20 000. Non-controlling interests are measured at the proportionate share of the net assets acquired.

What was the cost of the investment in Sword?

A $324 000  
B $332 000  
C $348 000  
D $356 000

10 XY owns 75% of the issued equity share capital of PQ. At the year end, XY held inventories valued at $160 000 and PQ held inventories valued at $90 000. The inventories held by XY included $20 000 of goods purchased from PQ at a profit margin of 30%. There was also inventories in transit between the two companies; this amounted to a further $10 000 at selling price.

At what value should inventories appear in the consolidated statement of financial position?

A $228 500  
B $251 000  
C $254 000  
D $266 000
## Answers to quick revision questions

### Question 1

\[
\frac{15000 - 12000}{133.3} \times 80\% = \frac{33.3}{133.3} \times 80\% = 13.3 \times 80 = 1064.8
\]

### Question 2

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration transferred</td>
<td>$180,000</td>
</tr>
<tr>
<td>Net assets acquired</td>
<td>$190,000</td>
</tr>
<tr>
<td>Share capital</td>
<td>$100,000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>$90,000</td>
</tr>
<tr>
<td>Group share (190,000 × 80%)</td>
<td>(152,000)</td>
</tr>
<tr>
<td>Goodwill attributable to parent</td>
<td>$28,000</td>
</tr>
<tr>
<td>Goodwill attributable to non-controlling interest</td>
<td>$4,000</td>
</tr>
<tr>
<td>Goodwill in statement of financial position</td>
<td>$32,000</td>
</tr>
</tbody>
</table>

### Question 3

Non-controlling interest = 20% × $260,000 = $52,000 + goodwill of $4,000 = $56,000

### Question 4

\[
\text{Alpha retained earnings} = 210,000
\]

\[
\text{Beta - group share post-acquisition} = (160,000 - 90,000) \times 80\% = 56,000
\]

\[
\text{Total} = 266,000
\]

### Question 5

Consolidated statement of financial position

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strachey</td>
<td>$445</td>
</tr>
<tr>
<td>Add provision for unrealised profit (60 × 20/120)</td>
<td>35</td>
</tr>
</tbody>
</table>

### Question 6

\[
\text{Falcon} = 58
\]

\[
\text{Kestrel} = 4 \times (25 - 20) = 4 \times 5 = 20
\]

\[
\text{Less impairment of goodwill} = (8)
\]

\[
\text{Goodwill:}
\]

\[
\text{Consideration transferred} = 24
\]

\[
\text{Net assets acquired (80% × 20)} = (16) = 8
\]

### Question 7

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration transferred</td>
<td>$400</td>
</tr>
<tr>
<td>Net assets acquired (90% × 350)</td>
<td>(315)</td>
</tr>
</tbody>
</table>

### Question 8

$3,100 to be included as cash in transit. The payment sent by STV the parent company to its subsidiary TUW should be included as cash in transit on consolidation.

### Question 9

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary shares</td>
<td>300</td>
</tr>
<tr>
<td>Retained earnings at 1 January 20X1</td>
<td>80</td>
</tr>
<tr>
<td>Retained profit for the 9 months ended 30 September 20X1 (9/12 × 40)</td>
<td>30</td>
</tr>
<tr>
<td>Group share (80%)</td>
<td>328</td>
</tr>
<tr>
<td>Add goodwill</td>
<td>20</td>
</tr>
</tbody>
</table>

### Question 10

\[
\text{Goodwill} = 348
\]

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>XY</td>
<td>160</td>
</tr>
<tr>
<td>PQ</td>
<td>90</td>
</tr>
<tr>
<td>Inventory in transit</td>
<td>10</td>
</tr>
<tr>
<td>Provision for unrealised profit (20 + 10) × 30%</td>
<td>251</td>
</tr>
</tbody>
</table>
Consolidated Statement of Financial Position as at 30 June

<table>
<thead>
<tr>
<th>Assets</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment (120 000 + 100 000)</td>
<td>220 000</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
</tr>
<tr>
<td>Inventories (50 000 + 60 000)</td>
<td>110 000</td>
</tr>
<tr>
<td>Goods in transit (18 000 – 12 000)</td>
<td>6 000</td>
</tr>
<tr>
<td>Receivables (40 000 + 30 000)</td>
<td>70 000</td>
</tr>
<tr>
<td>Cash (4 000 + 6 000)</td>
<td>10 000</td>
</tr>
<tr>
<td>Total assets</td>
<td>196 000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equity and liabilities</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td></td>
</tr>
<tr>
<td>Ordinary shares, fully paid (parent)</td>
<td>100 000</td>
</tr>
<tr>
<td>Retained earnings (95 000 + 28 000)</td>
<td>123 000</td>
</tr>
<tr>
<td>Total equity</td>
<td>223 000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current liabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Payables (47 000 + 16 000)</td>
<td>63 000</td>
</tr>
<tr>
<td>Taxation (15 000 + 10 000)</td>
<td>25 000</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>88 000</td>
</tr>
</tbody>
</table>

Total equity and liabilities | 416 000

Note especially how:
(a) The uncancelled loan stock in S Co becomes a liability of the group
(b) The goods in transit is the difference between the current accounts ($18 000 – $12 000)
(c) The investment in S Co’s shares is cancelled against S Co’s share capital.

The group structure is:

P Co

60%

S Co

Partly cancelling items are the components of P Co’s investment in S Co, i.e. ordinary shares, loan stock. Non-controlling shareholders have an interest in 40% (8 000/20 000) of S Co’s ordinary shares, including reserves.

You should now total the assets and liabilities and produce workings for non-controlling interest, revaluation surplus and retained earnings as follows:

**Workings**

1. **Revaluation surplus**

<table>
<thead>
<tr>
<th>P Co</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of S Co’s revaluation surplus (60% × 6 000)</td>
<td>3 600</td>
</tr>
</tbody>
</table>

2. **Retained earnings**

<table>
<thead>
<tr>
<th>P Co</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of S Co’s retained earnings (60% × 4 000)</td>
<td>24 400</td>
</tr>
</tbody>
</table>
3 Non-controlling interest

S Co’s net assets (66 000 – 36 000)  
× 40%

The results of the workings are now used to construct the consolidated statement of financial position.

P GROUP
CONSOLIDATED STATEMENT OF FINANCIAL POSITION

<table>
<thead>
<tr>
<th>Assets</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>65 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>53 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>118 000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equity and liabilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity attributable to parent</td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>40 000</td>
</tr>
<tr>
<td>Revaluation surplus (W1)</td>
<td>3 600</td>
</tr>
<tr>
<td>Retained earnings (W2)</td>
<td>24 400</td>
</tr>
<tr>
<td><strong>Non-controlling interest (W3)</strong></td>
<td><strong>12 000</strong></td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td><strong>118 000</strong></td>
</tr>
</tbody>
</table>

Notes
(a) S Co is a subsidiary of P Co because P Co owns 60% of its ordinary capital.
(b) As always, the share capital in the consolidated statement of financial position is that of the parent alone. The share capital in S Co’s statement of financial position was partly cancelled against the investment shown in P Co’s statement of financial position, while the uncancelled portion was credited to the non-controlling interest.
(c) The figure for the non-controlling interest comprises the interest of outside investors in the share capital and reserves of the subsidiary. The uncancelled portion of S Co’s loan stock is not shown as part of the non-controlling interest but is disclosed separately as a liability of the group.

The non-controlling interest at any given reporting date is measured as:

\[
\text{NCI as measured at acquisition} \times \text{NCI share of profits made by the subsidiary since acquisition}
\]

Therefore:

\[
\begin{align*}
\text{NCI as measured at acquisition} & = 460 000 \\
\text{NCI share of post-acquisition profits} (10\% \times (275 400 + 286 000)) & = 56 140 \\
\end{align*}
\]

\[
\text{NCI} = 516 140
\]

4 To prepare the consolidated statement of financial position, follow the steps below:

1 Agree current accounts

Ping Co has goods in transit of $2 000 making its total inventory $3 000 + $2 000 = $5 000 and its liability to Pong Co $8 000 + $2 000 = $10 000.

Cancel common items: these are the current accounts between the two companies of $10 000 each.
2 **Calculate goodwill**

\[
\text{Goodwill} \quad \begin{array}{cc}
\text{Group} & \text{NCI} \\
\hline
\$ & \$ \\
38 734 & 9 000 \\
\end{array}
\]

Consideration trans (W3) / fair value of NCI

Net assets acquired as represented by:

- Ordinary share capital: 25 000
- Revaluation surplus on acquisition: 5 000
- Retained earnings on acquisition: 6 000
- Intangible asset – brand name: 5 000

\[
\begin{align*}
\text{Group / NCI} & \quad (32 800) \\
\text{Goodwill} & \quad 5 934
\end{align*}
\]

This goodwill (total $6 734) must be capitalised in the consolidated statement of financial position.

3 **Consideration transferred**

\[
\begin{align*}
\text{Cash paid} & \quad 30 000 \\
\text{Contingent consideration: } 10 000 \times 1/(1.07^2) & \quad 8 734
\end{align*}
\]

* Note that the contingent consideration has been discounted at 7% for two years (1 July 20X7 to 1 July 20X9).

However, at the date of the current financial statements, 30 June 20X8, the discount for one year has unwound. The amount of the discount unwound is:

\[
(10 000 \times 1/1.07) – 8 734 \quad 612
\]

So this amount will be charged to finance costs in the consolidated financial statements and the contingent consideration under liabilities will be shown as $9 346 (8 734 + 612).

4 **Calculate consolidated reserves**

\[
\begin{align*}
\text{Consolidated revaluation surplus} & \quad \$ \\
\text{Ping Co} & \quad 12 000 \\
\text{Share of Pong Co's post acquisition revaluation surplus} & \quad – \\
\hline
\text{Consolidated retained earnings} & \quad 12 000 \\
\end{align*}
\]

\[
\begin{align*}
\text{Ping} & \quad \text{Pong} \\
\text{Retained earnings per question} & \quad 26 000 \quad 28 000 \\
\text{Less pre-acquisition} & \quad (6 000) \quad (6 000) \\
\text{Discount unwound – finance costs} & \quad (612) \quad 22 000 \\
\text{Share of Pong: } 80% \times 22 000 & \quad 17 600 \quad 17 600 \\
\hline
\text{42 988} & \quad \text{42 988}
\end{align*}
\]

5 **Calculate non-controlling interest at year end**

\[
\begin{align*}
\text{Pong Co's net assets per question } (65 000 – 7 000) & \quad 58 000 \\
\text{Intangible asset (brand name)} & \quad 5 000 \\
\hline
\text{NCI share 20%} & \quad 12 600 \\
\text{Goodwill } (W2) & \quad 800 \\
\hline
\text{13 400} & \quad \text{13 400}
\end{align*}
\]
## Prepare the consolidated statement of financial position

### PING CO

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 20X8**

<table>
<thead>
<tr>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment ($50 000 + $40 000)</td>
<td>90 000</td>
</tr>
<tr>
<td>Intangible assets: goodwill (W2)</td>
<td>6 734</td>
</tr>
<tr>
<td>Brand name</td>
<td>5 000</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
</tr>
<tr>
<td>Inventories ($5 000 + $8 000)</td>
<td>13 000</td>
</tr>
<tr>
<td>Receivables ($16 000 + $7 000)</td>
<td>23 000</td>
</tr>
<tr>
<td>Cash</td>
<td>2 000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>139 734</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>45 000</td>
</tr>
<tr>
<td>Revaluation surplus (W4)</td>
<td>12 000</td>
</tr>
<tr>
<td>Retained earnings (W4)</td>
<td>42 989</td>
</tr>
<tr>
<td><strong>Non-controlling interest (W5)</strong></td>
<td>13 400</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>113 389</td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td></td>
</tr>
<tr>
<td>Trade payables ($10 000 + $7 000)</td>
<td>17 000</td>
</tr>
<tr>
<td>Contingent consideration (W3)</td>
<td>9 345</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td>139 734</td>
</tr>
</tbody>
</table>

### To prepare the consolidated statement of financial position, follow the steps below:

1. **Goodwill**
   - Consideration transferred $46 000
   - Net assets acquired as represented by
     - Share capital $30 000
     - Retained earnings $10 000
   - **Goodwill** $6 000

2. **Retained earnings**
   - **PCo** $45 000
   - **SCo** $22 000
   - Retained earnings per question $45 000
   - Unrealised profit: $15 000 × 20% $3 000
   - Pre-acquisition $10 000
   - **Share of SCo** $9 000
   - **Goodwill impairment loss** $1 500
   - **Total** $52 500
## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>120 000</td>
<td></td>
</tr>
<tr>
<td>Goodwill (6 000 – 1 500)</td>
<td>4 500</td>
<td>124 500</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>55 000</td>
<td>179 500</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>100 000</td>
<td>152 500</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>52 500</td>
<td></td>
</tr>
<tr>
<td><strong>Current liabilities</strong></td>
<td>27 000</td>
<td>179 500</td>
</tr>
<tr>
<td><strong>Total equity and liabilities</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Workings

1. **Current assets**

   - In P Co’s statement of financial position: 40 000
   - In S Co’s statement of financial position: 30 000
   - Less S Co’s current account with P Co cancelled: (12 000)
   - Less unrealised profit excluded from inventory valuation: (3 000)

   **Total**: 58 000

2. **Current liabilities**

   - In P Co’s statement of financial position: 21 000
   - Less P Co’s current account with S Co cancelled: (12 000)
   - In S Co’s statement of financial position: 18 000

   **Total**: 27 000

6. Singe Co has made a profit of $24 000 ($43 000 – $19 000) for the year. In the absence of any direction to the contrary, this should be assumed to have arisen evenly over the year; $6 000 in the three months to 31 March and $18 000 in the nine months after acquisition. The company’s pre-acquisition retained earnings are therefore as follows:

   - Balance at 31 December 20X4: 19 000
   - Profit for three months to 31 March 20X5: 6 000
   - Pre-acquisition retained earnings: 25 000

The consolidation workings can now be drawn up.

1. **Goodwill**

   - Consideration transferred: 50 000
   - Net assets acquired represented by:
     - Ordinary share capital: 10 000
     - Retained earnings (pre-acquisition): 25 000

   **Group share 80%**

   - Goodwill attributable to group: 22 000
   - Goodwill attributable to NCI: 3 000

   **Total**: 25 000
2  
Retained earnings

<table>
<thead>
<tr>
<th></th>
<th>Hinge Co</th>
<th>Singe Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per question</td>
<td>$47 000</td>
<td>$43 000</td>
</tr>
<tr>
<td>Pre-acquisition (see above)</td>
<td>(25 000)</td>
<td></td>
</tr>
<tr>
<td>Share of Singe: $18 000 × 80%</td>
<td>14 400</td>
<td></td>
</tr>
</tbody>
</table>

3  
Non-controlling interest at reporting date

<table>
<thead>
<tr>
<th></th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singe Co net assets (73 000 – 20 000)</td>
<td>53 000</td>
</tr>
<tr>
<td>× 20%</td>
<td>10 600</td>
</tr>
<tr>
<td>Goodwill</td>
<td>3 000</td>
</tr>
<tr>
<td></td>
<td>13 600</td>
</tr>
</tbody>
</table>

HINGE CO
CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X5

<table>
<thead>
<tr>
<th></th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td>62 000</td>
</tr>
<tr>
<td>Goodwill (W1)</td>
<td>25 000</td>
</tr>
<tr>
<td>Current assets</td>
<td>128 000</td>
</tr>
<tr>
<td>Total assets</td>
<td>215 000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equity and liabilities</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td></td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>100 000</td>
</tr>
<tr>
<td>Retained earnings (W2)</td>
<td>61 400</td>
</tr>
<tr>
<td></td>
<td>161 400</td>
</tr>
<tr>
<td>Non-controlling interest (W3)</td>
<td>13 600</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>40 000</td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td>175 000</td>
</tr>
</tbody>
</table>

7  
S Co: carrying amount at disposal (at historical cost) = $4 000 × 1½/4 = $1 500

\[\text{\therefore Profit on disposal = } \$1 100 \text{ (depreciation charge for the year = } \$500)\]

P Co: carrying amount at disposal (at fair value) = $3 000 × 1½/2 = $2 250

\[\text{\therefore Profit on disposal for consolidation = } \$350 \text{ (depreciation for the year = } \$750)\]

The non-controlling interest would be credited with 20% of both the profit on disposal and the depreciation charge as part of the one line entry in the consolidated statement of profit or loss and other comprehensive income.

8  
Goodwill on consolidation of Kono Co

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consideration ($2.00 × 6m)</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>Fair value of net assets acquired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Pre-acquisition reserves</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>Fair value adjustments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment (16.6 – 16.0)</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Inventories (4.2 – 4.0)</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13.2</td>
<td></td>
</tr>
<tr>
<td>Group share 75%</td>
<td>(9.9)</td>
<td></td>
</tr>
<tr>
<td>Goodwill</td>
<td>2.1</td>
<td></td>
</tr>
</tbody>
</table>
Notes on treatment

(a) Share capital and pre-acquisition profits represent the book value (carrying amount) of the net assets of Kono Co at the date of acquisition. Adjustments are then required to this book value in order to give the fair value of the net assets at the date of acquisition. For short-term monetary items, fair value is their carrying amount on acquisition.

(b) IFRS 3 states that the fair value of property, plant and equipment should be determined by market value.

(c) Raw materials should be valued at their replacement cost of $4.2m.

(d) The rationalisation costs cannot be reported in pre-acquisition results under IFRS 3 as they are not a liability of Kono Co at the acquisition date.
Chapter 12

The consolidated statement of profit or loss

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidated financial statements</td>
<td>LO6</td>
</tr>
<tr>
<td>Explain and prepare consolidation worksheet entries where a parent has ownership interest in a subsidiary</td>
<td>LO6.5</td>
</tr>
<tr>
<td>Explain why transactions within a group must be eliminated</td>
<td>LO6.6</td>
</tr>
<tr>
<td>Prepare consolidation worksheet entries to eliminate transactions within a group</td>
<td>LO6.8</td>
</tr>
<tr>
<td>Define and explain the concept of 'non-controlling interest'</td>
<td>LO6.9</td>
</tr>
</tbody>
</table>

Topic list

1. Basic principles of the consolidated statement of profit or loss
2. Intra-group transactions
3. Pre-acquisition profits and mid-year acquisitions
4. Other adjustments
5. Summary
This chapter deals with the consolidated statement of profit or loss and other comprehensive income. We have already met most of the consolidation adjustments in the previous chapter; in this chapter we shall concentrate on their effects on the statement of profit or loss. For the purposes of the Financial Accounting and Reporting syllabus, we are only interested in the top part of the statement of profit or loss and other comprehensive income, the statement of profit or loss.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What are the basic consolidation procedures regarding income and expenses and dividends received by the parent from subsidiary entities? (Section 1)
2. How is the non-controlling interest in profit calculated? (Section 1)
3. How are sales made by a subsidiary to a parent dealt with in the consolidated statement of profit or loss? (Section 2.1)
4. What adjustment is required for an unrealised profit on inventory? (Section 2.1)
5. Where a non-current asset has been transferred between group entities in the accounting period, how is the unrealised profit calculated? (Section 2.2)
6. How is the mid-year acquisition of a subsidiary dealt with in the consolidated statement of profit or loss? (Section 3)
7. Where is an impairment of goodwill usually charged in the consolidated statement of profit or loss? (Section 4.2)
1 Basic principles of the consolidated statement of profit or loss

Section overview

- The consolidated statement of profit or loss is produced by aggregating amounts in the individual accounts of the parent and subsidiary. The non-controlling interest (NCI) is brought in as a one-line adjustment at the end of the statement.

The consolidated statement of profit or loss is based on the following basic principles:

- Income and expenses of the parent and subsidiary are added together on a line-by-line basis.
- Dividend income in the parent’s statement of profit or loss from the subsidiary is cancelled.
- The profit shown in the statement of profit or loss must be attributed to the non-controlling interest and the parent in proportion to their ownership share.
- The non-controlling interest in profit is calculated as the NCI’s share of the profit of the subsidiary for the year after any consolidation adjustments attributable to the subsidiary.

In practice, it is customary to prepare a working paper (known as a consolidation schedule) on which the individual entities’ statements of profit or loss are set side by side and totalled to form the basis of the consolidated statement of profit or loss. The same effect is achieved through bracketed workings in the following example.

Example: Consolidated statement of profit or loss

P Co acquired 75% of the ordinary shares of S Co on that company’s incorporation in 20X3.

The summarised statements of profit or loss and movement on retained earnings of the two companies for the year ending 31 December 20X6 are set out below:

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$75 000</td>
<td>$38 000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>$30 000</td>
<td>$20 000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$45 000</td>
<td>$18 000</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>$14 000</td>
<td>$8 000</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>$31 000</td>
<td>$10 000</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>$10 000</td>
<td>$2 000</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>$21 000</td>
<td>$8 000</td>
</tr>
</tbody>
</table>

Note: Movement in retained earnings

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retained earnings brought forward</td>
<td>$87 000</td>
<td>$17 000</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>$21 000</td>
<td>$8 000</td>
</tr>
<tr>
<td>Retained earnings carried forward</td>
<td>$108 000</td>
<td>$25 000</td>
</tr>
</tbody>
</table>

Required

Prepare the consolidated statement of profit or loss and extract from the statement of changes in equity showing retained earnings and non-controlling interest.
Solution

P CO
CONSOLIDATED STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 31 DECEMBER 20X6

$  
Revenue (75 + 38)  113 000  
Cost of sales (30 + 20)  50 000  
Gross profit  63 000  
Administrative expenses (14 + 8)  22 000  
Profit before tax  41 000  
Income tax expense (10 + 2)  12 000  
Profit for the year  29 000  
Profit attributable to:  
Parent  27 000  
Non-controlling interest ($8 000 × 25%)  2 000  
29 000  
STATEMENT OF CHANGES IN EQUITY (EXTRACT)  
Retained earnings  Non-controlling interest  Total equity  
$  $  $  
Balance at 1 January 20X6  
(87 000 + (17 000 × 75%))/(17 000 × 25%)  99 750  4 250  104 000  
Total comprehensive income for the year  
27 000  2 000  29 000  
Balance at 31 December 20X6  
126 750  6 250  133 000  

Notice how the non-controlling interest is dealt with:

(a) Down to the line ‘profit for the year’ the whole of S Co’s results is included without reference to group share or non-controlling share. The profit is then allocated between the NCI and the parent.

(b) Retained earnings at 1 January 20X6 is calculated on the same basis as that used in the statement of financial position detailed in the last chapter: the group share of S Co’s retained earnings brought forward of $12 750 (75% x $17 000) are added to P Co’s retained earnings brought forward of $87 000.

(c) The non-controlling interest brought forward of $4 250 is calculated as the NCI share of S Co’s retained earnings brought forward (17 000 × 25%).

(d) The group retained earnings figure of $126 750 should be the same as the amount reported in the consolidated statement of financial position.

We will now consider the complications introduced by inter-company trading, inter-company dividends and pre-acquisition profits in the subsidiary.

2 Intra-group transactions

Section overview

- Intra-group sales and purchases are eliminated from the consolidated statement of profit or loss.

2.1 Intra-group trading

Like the consolidated statement of financial position, the consolidated statement of profit or loss should deal with the results of the group as those of a single entity. When one company in a group sells goods to
another an identical amount is added to the sales revenue of the first company and to the cost of sales of the second. Yet as far as the group’s dealings with outsiders are concerned no sale has taken place.

The consolidated figures for sales revenue and cost of sales should represent sales to, and purchases from, outsiders. An adjustment is therefore necessary to reduce the sales revenue and cost of sales figures by the value of intra-group sales during the year.

We have also seen in the previous chapter that any unrealised profits on intra-group trading should be excluded from the figure for group profits. This will occur whenever goods sold at a profit within the group remain in the inventory of the purchasing company at the year end. The best way to deal with this is to calculate the unrealised profit on unsold inventories at the year end and increase the cost of sales of the seller by this amount.

Example: Intra-group trading

Suppose in our earlier example that S Co had recorded sales of $5 000 to P Co during 20X6. S Co had purchased these goods from outside suppliers at a cost of $3 000. One half of the goods remained in P Co’s inventory at 31 December 20X6. Prepare the revised consolidated statement of profit or loss.

Solution

The consolidated statement of profit or loss for the year ended 31 December 20X6 would now be as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (75 + 38 − 5)</td>
<td>$108,000</td>
</tr>
<tr>
<td>Cost of sales (30 + 20 − 5 + 1*)</td>
<td>(46,000)</td>
</tr>
<tr>
<td>Gross profit (45 + 18 − 1*)</td>
<td>62,000</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>(22,000)</td>
</tr>
<tr>
<td>Profit before taxation</td>
<td>40,000</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(12,000)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>28,000</td>
</tr>
<tr>
<td>Profit attributable to:</td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td>26,250</td>
</tr>
<tr>
<td>Non-controlling interest (8 000 − 1 000) × 25%</td>
<td>1,750</td>
</tr>
<tr>
<td></td>
<td>28,000</td>
</tr>
<tr>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td>Retained earnings brought forward</td>
<td>99,750</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>26,250</td>
</tr>
<tr>
<td>Retained earnings carried forward</td>
<td>126,000</td>
</tr>
</tbody>
</table>

*Unrealised profit: ½ × ($5 000 − $3 000)

An adjustment will be made for the unrealised profit against the inventory figure in the consolidated statement of financial position.

2.2 Intra-group transfers of non-current assets

In the previous chapter we saw that intra-group transfers of non-current assets are also likely to result in an unrealised profit. The consolidated financial statements must represent non-current assets at their depreciated cost to the group and therefore such unrealised profits must be eliminated on consolidation.

The adjustment required to the statement of profit or loss in this case will depend upon whether the non-current asset was transferred in the current or a previous year.

Where the transfer was in a previous year, adjustment is made to ensure that the depreciation charge is based on the cost of the asset to the group.

Where the transfer was made in the year, the depreciation charge must be adjusted and any profit or loss on disposal recorded in the profit of the selling company must be cancelled.

Adjustments are made in the selling company’s statement of profit or loss in the cost category in which depreciation relevant to the asset is charged.
Question 1: Transfer of non-current assets

Way Co transferred a machine to Sly Co on 1 May 20X8 for $26 000. The original cost of the machine on 1 May 20X4 was $40 000, and on this date the asset was estimated to have a 10 year useful life. After the transfer, Sly Co continues to depreciate the machine over its remaining useful life.

What adjustment must be made to consolidated cost of sales in the year ended 31 December 20X8?

(The answer is at the end of the chapter)

2.3 Intra-group dividends

In our example so far we have assumed that S Co retains all of its after-tax profit. It may be, however, that S Co distributes some of its profits as dividends. As before, the non-controlling interest in the subsidiary’s profit should be calculated immediately after the figure of after-tax profit. For this purpose, no account need be taken of how much of the non-controlling interest is to be distributed by S Co as dividend.

3 Pre-acquisition profits and mid-year acquisitions

Section overview

- Only the post-acquisition profits of the subsidiary are brought into consolidated profit or loss.

As explained above, the figure for retained earnings carried forward must be the same as the figure for retained earnings in the consolidated statement of financial position. We have seen in the previous chapter that retained earnings in the consolidated statement of financial position comprise:

(a) The whole of the parent’s retained earnings
(b) The group’s share of post-acquisition retained earnings in the subsidiary.

In order for the consolidated statement of profit or loss to link up with the consolidated statement of financial position, it is therefore important that the results of a subsidiary are consolidated only from the date of acquisition.

If the subsidiary is acquired during the accounting year, it is therefore necessary to apportion its profit for the year between pre-acquisition and post-acquisition elements. The part year method is used.

With the part-year method, the entire statement of profit or loss of the subsidiary is split between pre-acquisition and post-acquisition proportions. Only the post-acquisition figures are included in the consolidated statement of profit or loss.

Question 2: Acquisition

P Co acquired 60 per cent of the $100 000 equity of S Co on 1 April 20X5. The statements of profit or loss of the two companies for the year ended 31 December 20X5 are set out on the next page:

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
<th>S Co (7/12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>170 000</td>
<td>80 000</td>
<td>60 000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>65 000</td>
<td>36 000</td>
<td>27 000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>105 000</td>
<td>44 000</td>
<td>33 000</td>
</tr>
<tr>
<td>Other income – dividend received S Co</td>
<td>3 600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>43 000</td>
<td>12 000</td>
<td>9 000</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>65 600</td>
<td>32 000</td>
<td>24 000</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>23 000</td>
<td>8 000</td>
<td>6 000</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>42 600</td>
<td>24 000</td>
<td>18 000</td>
</tr>
</tbody>
</table>
Note

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividends (paid 31 December)</td>
<td>$12,000</td>
<td>$6,000</td>
</tr>
<tr>
<td>Profit retained</td>
<td>$30,600</td>
<td>$18,000</td>
</tr>
<tr>
<td>Retained earnings brought forward</td>
<td>$81,000</td>
<td>$40,000</td>
</tr>
<tr>
<td>Retained earnings carried forward</td>
<td>$111,600</td>
<td>$58,000</td>
</tr>
</tbody>
</table>

Prepare the consolidated statement of profit or loss and the retained earnings and non-controlling interest extracts from the statement of changes in equity.

(The answer is at the end of the chapter)

Question 3: Non-controlling interest

The following information relates to Brodick Co and its subsidiary Lamlash Co for the year to 30 April 20X7.

<table>
<thead>
<tr>
<th>Brodick Co</th>
<th>Lamlash Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$1,100</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>(630)</td>
</tr>
<tr>
<td>Gross profit</td>
<td>470</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>(105)</td>
</tr>
<tr>
<td>Dividend from Lamlash Co</td>
<td>24</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>389</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(65)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>324</td>
</tr>
</tbody>
</table>

Note:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividends paid</td>
<td>$200</td>
</tr>
<tr>
<td>Profit retained</td>
<td>124</td>
</tr>
<tr>
<td>Retained earnings brought forward</td>
<td>460</td>
</tr>
<tr>
<td>Retained earnings carried forward</td>
<td>584</td>
</tr>
</tbody>
</table>

Additional information

(a) The issued share capital of the group was as follows.
   - Brodick Co: 5,000,000 ordinary shares
   - Lamlash Co: 1,000,000 ordinary shares

(b) Brodick Co purchased 80% of the issued share capital of Lamlash Co in 20X0. At that time, the retained earnings of Lamlash stood at $56,000.

Required

To the extent that the information permits, prepare the Brodick group consolidated statement of profit or loss for the year to 30 April 20X7, and extracts from the consolidated statement of changes in equity showing retained earnings and non-controlling interest.

(The answer is at the end of the chapter)

4 Other adjustments

**Section overview**

- Adjustments must be made where a depreciable asset in the subsidiary's accounts has been the subject of a fair value uplift or where goodwill has been impaired.
4.1 Fair value adjustments

When dealing with the consolidated statement of financial position, one of the issues covered was the potential need to adjust assets (and liabilities) in the subsidiary’s accounts in order to reflect fair value.

Where a non-current asset is the subject of a fair value uplift for consolidation purposes this will result in a need to charge extra depreciation. Depreciation based on the book value of the asset will be included in the subsidiary’s own statement of profit or loss, therefore any extra depreciation charge should be added as a consolidation adjustment.

4.2 Goodwill impairment

Where goodwill has been the subject of an impairment in the period, the impairment loss must be charged to consolidated profits. It is normal convention to include this amount as part of administrative expenses in the consolidated statement of profit or loss.

Where the non-controlling interest is measured at fair value, part of the impairment is allocated to non-controlling interest goodwill. The proportion relating to the non-controlling interest should be deducted from the profits allocated to the NCI.

Where the non-controlling interest is measured as a proportion of the net assets of the subsidiary, goodwill relates only to the parent and therefore no adjustment to the non-controlling interest in profit is required.

5 Summary

The table below summarises the main points about the consolidated statement of profit or loss.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>To show the results of the group for an accounting period as if it were a single entity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue to profit for year</td>
<td>100% P + 100% S (excluding adjustments for inter-company transactions).</td>
</tr>
<tr>
<td>Reason</td>
<td>To show the results of the group which were controlled by the parent.</td>
</tr>
<tr>
<td>Intra-group sales</td>
<td>Strip out inter-company activity from both revenue and cost of sales.</td>
</tr>
<tr>
<td>Unrealised profit on intra-group sales</td>
<td>(a) Goods sold by P. Increase cost of sales by unrealised profit.</td>
</tr>
<tr>
<td></td>
<td>(b) Goods sold by S. Increase cost of sales by full amount of unrealised profit and decrease non-controlling interest by their share of unrealised profit.</td>
</tr>
<tr>
<td>Depreciation</td>
<td>If the value of S’s non-current assets have been subjected to a fair value uplift then any additional depreciation must be charged in the consolidated statement of profit or loss. The non-controlling interest will need to be adjusted for their share.</td>
</tr>
<tr>
<td>Transfer of non-current assets</td>
<td>Expenses must be increased by any profit on the transfer and reduced by any additional depreciation arising from the increased carrying amount of the asset.</td>
</tr>
<tr>
<td>Non-controlling interests</td>
<td>S’s profit after tax (PAT)</td>
</tr>
<tr>
<td></td>
<td>Less: * unrealised profit</td>
</tr>
<tr>
<td></td>
<td>* profit on disposal of non-current assets</td>
</tr>
<tr>
<td></td>
<td>additional depreciation following FV uplift</td>
</tr>
<tr>
<td></td>
<td>Add: ** additional depreciation following disposal of non-current assets</td>
</tr>
<tr>
<td></td>
<td>NCI%</td>
</tr>
<tr>
<td></td>
<td>* Only applicable if sales of goods and non-current assets made by subsidiary.</td>
</tr>
<tr>
<td></td>
<td>** Only applicable if sale of non-current assets made by subsidiary.</td>
</tr>
<tr>
<td>Reason</td>
<td>To show the extent to which profits generated through P’s control are in fact owned by other parties.</td>
</tr>
</tbody>
</table>
Key chapter points

- The consolidated statement of profit or loss is produced by adding amounts in the individual accounts of the parent and subsidiary on a line by line basis.
- The non-controlling interest is brought in as a one-line adjustment at the end of the statement. It is calculated as the NCI share of the profits of the subsidiary for the year, after any consolidation adjustments attributable to the subsidiary.
- Intra-group sales and purchases are eliminated from the consolidated statement of profit or loss.
- Any unrealised profits must also be eliminated.
- Only the post-acquisition profits of the subsidiary are brought into the consolidated statement of profit or loss. In the case of a mid-year acquisition, the profits of the subsidiary must be pro-rated prior to consolidation.
- Where a non-current asset is the subject of a fair value uplift for consolidation purposes any extra depreciation charge should be added as a consolidation adjustment.
- Where goodwill has been the subject of an impairment in the period, the impairment loss must be charged to the consolidated statement of profit or loss.
Quick revision questions

1. At the beginning of the year a 75% subsidiary transfers a non-current asset to the parent for $500 000. At that date, its carrying amount was $400 000 and it had four years of useful life left. What adjustment is made to total consolidated profit before tax for the year in respect of the transfer?
   A $25 000 credit
   B $75 000 debit
   C $100 000 credit
   D $100 000 debit

2. AB acquired a 60% holding in CD many years ago. At 31 December 20X3 AB held inventory with a book value of $30 000 purchased from CD at cost plus 20%.
   The effect on the consolidated statement of profit or loss for the year is:
   Profit attributable to parent   Profit attributable to non-controlling interest
   A reduced by $3 000   reduced by $2 000
   B reduced by $3 600   reduced by $2 400
   C reduced by $5 000   no effect
   D reduced by $6 000   no effect

3. In the consolidated statement of profit or loss for the year ended 31 December 20X2, revenue will be reduced by
   A $18 750
   B $20 000
   C $22 500
   D $25 000

4. In the consolidated statement of profit or loss for the year ended 31 December 20X2, gross profit will be reduced by
   A $1 800
   B $2 000
   C $2 250
   D $2 500

5. Parent owned 80% of the issued equity share capital of Subsidiary. For the year ended 31 December 20X6 Subsidiary reported a net profit of $55 million. During 20X6 Subsidiary sold goods to Parent for $15 million at cost plus 20%. At the year end half these goods are still held by Parent.
   In the consolidated statement of profit or loss for the year ended 31 December 20X6 the non-controlling interest is
   A $8 million
   B $10.7 million
   C $10.75 million
   D $11 million

6. Where the purchase price of an acquisition is less than the aggregate fair value of the net assets acquired, which one of the following accounting treatments of the difference is required by IFRS 3 Business combinations?
   A Deduction from goodwill in the consolidated statement of financial position
   B Immediate recognition as a gain in profit or loss
   C Immediate recognition as a gain in the statement of changes in equity
   D Recognition in profit over its estimated useful life
7 GPT regularly sells goods to its subsidiary in which it owns 60% of the ordinary share capital. During the group’s financial year ended 31 August 20X7, GPT sold goods to its subsidiary valued at $100 000 (selling price) upon which it makes a margin of 20%. By the group’s year end all of the goods had been sold to parties outside the group.

What is the correct consolidation adjustment in respect of these sales for the year ended 31 August 20X7?
A Dr Revenue $60 000; Cr Cost of sales $60 000
B Dr Revenue $80 000; Cr Cost of sales $80 000
C Dr Revenue $100 000; Cr Cost of sales $100 000
D No adjustment required

8 On 1 March 20X7, XPR acquired control of YQS, purchasing 60% of its issued ordinary share capital. YQS is located in a country where compliance with most, but not all, IFRS is required by law. For example, there is no requirement to discount liabilities. No material fair value adjustments were identified at the date of acquisition of YQS, except in respect of a deferred liability to a supplier which will fall due on 1 March 20X9. The amount payable on that date will be $300 000. The discount rate relevant to the liability is 8%.

YQS’s profit for the period ended 29 February 20X8 was $67 600 before taking into account any unwinding of the discount in respect of the liability referred to above.

What is the share of YQS’s profit for the period attributable to equity shareholders of the parent, after taking into account any adjustment required in respect of the liability?
A $26 160
B $28 219
C $52 901
D $54 960

9 Lay Co acquired 90% of the ordinary shares in Hay Co on 1 August 20X8 at a cost of $450 000. On that date the net assets of Hay Co amounted to $460 000. In the year ended 30 June 20X9, Lay Co reported a profit of $189 000 and Hay Co of $60 000. Trading conditions indicated that the goodwill in Hay Co may be impaired and a review found that it was indeed impaired by 50%. It is Lay Co group policy to measure the non-controlling interest as a percentage of net assets. What is the profit for the year ended 30 June 20X9 before allocation to the group owners and the non-controlling interest?
A $208 000
B $213 000
C $226 000
D $231 000

10 Radio Co acquired 85% of the ordinary shares in Stereo Co a number of years ago giving rise to $14 000 of goodwill calculated using the full fair value method. The following is relevant to the year ended 31 December 20X8:
- Radio Co has reported a profit of $90 000
- Stereo Co has reported a profit of $40 000
- Intercompany sales were made by Radio to Stereo amounting to $20 000 at cost plus 10%.
  Half of the goods remain in inventory at the year end
- Goodwill is impaired by $6 000

What is the non-controlling interest in profit for the year?
A $4 191
B $5 091
C $5 100
D $6 000
Answers to quick revision questions

1. B

<table>
<thead>
<tr>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrealised profit</td>
</tr>
<tr>
<td>Additional depreciation (100 ÷ 4)</td>
</tr>
<tr>
<td>Net charge to profit or loss</td>
</tr>
</tbody>
</table>

   DR CR
   $    $  

   Non-current asset | 100 000
   Additional depreciation | 25 000
   Group profit (75%) | 56 250
   Non-controlling interest (25%) | 18 750

   $100 000 $100 000

2. A

   The amount of unrealised profit is $5 000 (30 000 × 20/120).

   The subsidiary has sold to the parent, therefore the unrealised profit has arisen in the accounts of the subsidiary and must be allocated between the parent and the non-controlling interest.

3. D

   Revenue is reduced by the full amount of intra-group sales.

4. B

   Gross profit is reduced by the element of unrealised profit, which is 10 000 × 25/125.

5. C

<table>
<thead>
<tr>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profit of subsidiary</td>
</tr>
<tr>
<td>Less provision for unrealised profit (15 000 × 20/120 × ½)</td>
</tr>
</tbody>
</table>

   NCI share (20%) | 10 750

6. B

   ‘Negative goodwill’ (referred to as a bargain purchase in IFRS 3) is re-assessed and then recognised immediately in profit or loss.

7. C

<table>
<thead>
<tr>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEBIT Revenue</td>
</tr>
<tr>
<td>CREDIT Cost of sales</td>
</tr>
</tbody>
</table>

   Intra-group revenue must be eliminated in full from revenue as income and costs are wholly intra-group. As there is no unsold inventory at the year end and, therefore, no unrealised profit, the adjustment to costs is the same as the adjustment to revenue.

8. B

   The liability of $300 000 falls due two years after the acquisition date so the fair value of the liability at 1 March 20X7 was:

   $300 000 × 1/1.08² = $257 100

   The adjustment to unwind the discount for the year to 29 February 20X8 is:

<table>
<thead>
<tr>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEBIT Interest ($257 100 × 8%)</td>
</tr>
<tr>
<td>CREDIT Liability</td>
</tr>
</tbody>
</table>

   Therefore after taking into account the adjustment for the unwinding of the discount the profit for the period for YQS is $47 032 (being $67 600 – $20 568).

   The share attributable to the equity shareholders of XPR is $28 219 (being 60% of $47 032).
9  C  
<table>
<thead>
<tr>
<th>Description</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit of Lay Co</td>
<td>189 000</td>
</tr>
<tr>
<td>Profit of Hay Co since acquisition</td>
<td>55 000</td>
</tr>
<tr>
<td>11/12 × $60 000</td>
<td></td>
</tr>
<tr>
<td>Goodwill impairment</td>
<td></td>
</tr>
<tr>
<td>Consideration transferred</td>
<td>450 000</td>
</tr>
<tr>
<td>NCI (10% × 460 000)</td>
<td>46 000</td>
</tr>
<tr>
<td>Net assets of Hay Co</td>
<td>(460 000)</td>
</tr>
<tr>
<td>36 000 × 50%</td>
<td>(18 000)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>226 000</td>
</tr>
</tbody>
</table>

10  C  
<table>
<thead>
<tr>
<th>Description</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCI in Stereo’s profit ($40 000 × 15%)</td>
<td>6 000</td>
</tr>
<tr>
<td>NCI share of impairment loss ($6 000 × 15%)</td>
<td>(900)</td>
</tr>
<tr>
<td></td>
<td>5 100</td>
</tr>
</tbody>
</table>

The unrealised profit is dealt with in the selling company’s books. In this case that is Radio.
Answers to chapter questions

1. The unrealised profit on disposal which must be added to cost of sales in order to eliminate it from profit is:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceeds</td>
<td>$26 000</td>
</tr>
<tr>
<td>Carrying amount at date of disposal</td>
<td>$(24 000)</td>
</tr>
<tr>
<td></td>
<td>$2 000</td>
</tr>
</tbody>
</table>

The increase in depreciation charge which must be deducted from cost of sales in order to increase profit is:

- 8 months depreciation on historic cost 8/12 × $40 000/10 = $2 667
- 8 months depreciation on transfer price 8/12 × $26 000/6 = $2 889
- Total increase in depreciation = $222

Therefore, the overall adjustment to cost of sales is an increase of $1 778 ($2 000 – $222).

2. The shares in S Co were acquired three months into the year. Only the post-acquisition proportion (9/12) of S Co's statement of profit or loss is included in the consolidated statement of profit or loss.

P CO CONSOLIDATED STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 31 DECEMBER 20X5

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (170 + 60)</td>
<td>$230 000</td>
</tr>
<tr>
<td>Cost of sales (65 + 27)</td>
<td>$(92 000)</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$138 000</td>
</tr>
<tr>
<td>Administrative expenses (43 + 9)</td>
<td>$(52 000)</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>$86 000</td>
</tr>
<tr>
<td>Income tax expense (23 + 6)</td>
<td>$(29 000)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>$57 000</td>
</tr>
</tbody>
</table>

Profit attributable to:
- Parent                                  | $49 800  |
- Non-controlling interest (18 × 40%)     | $7 200   |

STATEMENT OF CHANGES IN EQUITY

<table>
<thead>
<tr>
<th>Item</th>
<th>Retained earnings</th>
<th>Non-controlling interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at 1 January 20X5</td>
<td>$81 000</td>
<td>–</td>
</tr>
<tr>
<td>Dividends paid (6 000 × 40%)</td>
<td>$(12 000)</td>
<td>$(2 400)</td>
</tr>
<tr>
<td>Total comprehensive income for the year</td>
<td>$49 800</td>
<td>$7 200</td>
</tr>
<tr>
<td>Added on acquisition of subsidiary (W)</td>
<td>–</td>
<td>$58 400</td>
</tr>
<tr>
<td>Balance at 31 December 20X5</td>
<td>$118 800</td>
<td>$63 200</td>
</tr>
</tbody>
</table>

* All of S Co’s profits brought forward are pre-acquisition.

Working

- Added on acquisition of subsidiary:
  - Share capital                           | $100 000         |
  - Retained earnings brought forward       | $40 000          |
  - Profits Jan-Mar 20X5 (24 000 – 18 000) | $6 000           |
  - Total                                  | $146 000         |

- Non-controlling share 40%                 | $58 400          |
BRODICK GROUP
CONSOLIDATED STATEMENT OF PROFIT OR LOSS
FOR THE YEAR TO 30 APRIL 20X7

$'000

Revenue (1 100 + 500) 1 600
Cost of sales (630 + 300) (930)
Gross profit 670
Administrative expenses (105 + 150) (255)
Profit before tax 415
Income tax expense (65 + 10) (75)
Profit for the year 340

Profit attributable to:
Parent 332
Non-controlling interest (W1) 8
340

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (extracts)

$'000

Non-controlling Retained
interest earnings

Balance brought forward (W2, W3) 221.2 500
Dividends paid (30 000 – 24 000) (6) (200)
Total comprehensive income for the year 8 332
Balance carried forward 223.2 632

Workings

1. Non-controlling interests
   In Lamlash (20% × 40)
   $'000
   8

2. Non-controlling interest brought forward
   Share capital
   $'000
   1 000
   Retained earnings
   106
   1 106
   Non-controlling share 20%
   221.2

3. Retained earnings brought forward
   Brodick Co
   $'000
   460
   Less pre-aqn
   (56)
   50
   Share of Lamlash: 80% × 50
   40
   500

Note: The carried forward figures can be proved as follows:

Non-controlling interest 20% × (1 000 + 116) = 223.2
Retained earnings 584 + 80% (116 – 56) = 632
Chapter 13
Associates and equity accounting

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity accounting</strong></td>
<td>LO7</td>
</tr>
<tr>
<td>Explain the underlying methodology of the equity method and outline its basic features</td>
<td>LO7.2</td>
</tr>
<tr>
<td>Calculate the investor’s share in an investee and explain why this concept is important</td>
<td>LO7.3</td>
</tr>
<tr>
<td>Prepare journal entries to account for the initial application of the equity method</td>
<td>LO7.4</td>
</tr>
<tr>
<td>Prepare equity accounting entries to record investee results and dividends</td>
<td>LO7.5</td>
</tr>
<tr>
<td>Outline the disclosure requirements for investments in associates (IFRS 12)</td>
<td>LO7.6</td>
</tr>
</tbody>
</table>

**Topic list**

1. Accounting for associates
2. The equity method
3. Consolidated statement of profit or loss
4. Consolidated statement of financial position
5. Adjustments
6. Disclosures
In this chapter we deal with the treatment of associates in the consolidated financial statements. The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What method is applied to account for an associate in the consolidated financial statements? (Section 1.1)
2. How is an associate represented in the consolidated statement of profit or loss? (Section 3)
3. How is an investment in an associate calculated for inclusion in the consolidated statement of financial position? (Section 4)
4. What adjustment is required where an unrealised profit arises on a sale of goods from the associate to the parent company? (Section 5.1)
5. How does the adjustment differ where the parent company makes the sale to the associate? (Section 5.1)
6. How is any impairment of an investment in an associate accounted for? (Section 5.3)
1 Accounting for associates

Section overview
- Accounting for associates is covered by IAS 28 Investments in associates and joint ventures. The investing company does not have control, as it does with a subsidiary, but it does have significant influence.

1.1 Definitions

We discussed some of the important definitions in an earlier chapter; these are repeated here with some additional important terms.

Definitions

Associate. An entity over which the investor has significant influence.

Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control of those policies.

Equity method. A method of accounting whereby the investment is initially recognised at cost and adjusted thereafter for the post-acquisition change in the investor’s share of the investee’s net assets. The investor’s profit or loss includes its share of the investee’s profit or loss.

We have already discussed how the status of an investment in an associate should be determined.

IAS 28 requires all investments in associates to be accounted for in the consolidated accounts using the equity method, unless the investment is classified as 'held for sale' in accordance with IFRS 5 (not within the FAR syllabus), or the exemption in the paragraph below applies.

An investor is exempt from applying the equity method if:

(a) It is a parent exempt from preparing consolidated financial statements under IFRS 10, or
(b) All of the following apply:
   (i) The investor is a wholly-owned subsidiary or it is a partially-owned subsidiary of another entity and its other owners, including those not otherwise entitled to vote, have been informed about, and do not object to, the investor not applying the equity method;
   (ii) The investor’s securities are not publicly traded;
   (iii) It is not in the process of issuing securities in public securities markets; and
   (iv) The ultimate or intermediate parent publishes consolidated financial statements that comply with International Financial Reporting Standards.

The revised version of IAS 28 does not allow exclusions from equity accounting. Significant influence must be lost before the equity method ceases to be applicable.

The use of the equity method should be discontinued from the date that the investor ceases to be an associate. From that date:

(a) If the investment becomes a subsidiary, it should be consolidated in accordance with IFRS 3 and IFRS 10.
(b) If the retained interest is a financial asset (simple investment) the investor should account for the investment in accordance with IAS 39 Financial instruments: recognition and measurement. The carrying amount of the investment at the date that it ceases to be an associate should be regarded as its fair value on initial measurement as a financial asset under IAS 39. Note that IAS 39 is not within the scope of the FAR syllabus.
1.2 Separate financial statements of the investor

An investment in an associate should be recorded in the investor’s separate financial statements either:

(a) At cost, or
(b) At fair value (in accordance with IAS 39)

This applies regardless of whether consolidated financial statements are produced or not.

2 The equity method

Section overview

- The group share of the associate’s profit after tax forms part of group profits in the consolidated statement of profit or loss; the associate is recognised in the consolidated statement of financial position at cost plus the group share of the associate’s post-acquisition profits.

2.1 Application of the equity method: consolidated financial statements

Associates are not consolidated on a line by line basis because unlike subsidiaries, they and their assets and liabilities are not controlled by the parent. The existence of significant influence does, however mean that some portion of an associate’s net assets and profits should be recognised in the consolidated accounts. This is achieved by way of equity accounting.

Many of the procedures required to apply the equity method are the same as are required for full consolidation. In particular, intra-group unrealised profits must be excluded.

2.1.1 Consolidated statement of profit or loss

The basic principle is that the investing company (X Co) should take account of its share of the earnings of the associate, Y Co, whether or not Y Co distributes the earnings as dividends. X Co achieves this by adding to consolidated profit the group’s share of Y Co’s profit after tax.

Notice the difference between this treatment and the consolidation of a subsidiary’s results. If Y Co were a subsidiary X Co would take credit for the whole of its sales revenue, cost of sales etc and would then make a one-line adjustment to remove any non-controlling share.

Under equity accounting, the associate’s sales revenue, cost of sales and so on are not amalgamated with those of the group. Instead, the group share only of the associate’s profit after tax for the year is added to the group profit.

The net effect of both methods is the same: the group share of the investee’s profits is included within group profits, however this is achieved in a different way.

2.1.2 Consolidated statement of financial position

A figure for investment in associates is shown which at the time of the acquisition must be stated at cost, and is recorded by:

DEBIT Investment in associate
CREDIT Cash/consideration

This amount will increase (decrease) each year by the amount of the group’s share of the associate’s profit (loss) for the year.
Example: Associate

P Co, a company with subsidiaries, acquires 25,000 of the 100,000 ordinary shares in A Co for $60,000 on 1 January 20X8. In the year to 31 December 20X8, A Co earns profits after tax of $24,000, from which it pays a dividend of $6,000.

How will A Co’s results be accounted for in the individual and consolidated accounts of P Co for the year ended 31 December 20X8?

Solution

In the individual accounts of P Co, the investment will be recorded on 1 January 20X8 at cost. Unless there is an impairment in the value of the investment (see below), this amount will remain in the individual statement of financial position of P Co permanently. The only entry in P Co’s individual statement of profit or loss will be to record dividends received. For the year ended 31 December 20X8, P Co will:

\[
\begin{align*}
\text{DEBIT} & \quad \text{Cash} & \quad $1,500 \\
\text{CREDIT} & \quad \text{Income from shares in associates} & \quad $1,500
\end{align*}
\]

In the consolidated accounts of P Co equity accounting principles will be used to account for the investment in A Co. Consolidated profit after tax will include the group’s share of A Co’s profit after tax (25% × $24,000 = $6,000). To the extent that this has been distributed as dividend, it is already included in P Co’s individual accounts and will automatically be brought into the consolidated results. That part of the group’s share of profit in the associate which has not been distributed as dividend ($4,500) will be brought into consolidation by the following adjustment.

\[
\begin{align*}
\text{DEBIT} & \quad \text{Income from shares in associates} & \quad $1,500 \\
\text{DEBIT} & \quad \text{Investment in associates} & \quad $4,500 \\
\text{CREDIT} & \quad \text{Share of profit of associates} & \quad $6,000
\end{align*}
\]

The asset ‘Investment in associates’ is then stated at $64,500, being cost plus the group share of post-acquisition retained profits.

3 Consolidated statement of profit or loss

Section overview

- In the consolidated statement of profit or loss the investing group takes credit for its share of the after-tax profits of associates whether or not they are distributed as dividends.

A consolidation schedule may be used to prepare the consolidated statement of profit or loss of a group with associates. The treatment of associates’ profits in the following example should be studied carefully.
### 3.1 Example: Consolidation schedule

The following **consolidation schedule** relates to the P Co group, consisting of the parent, an 80% owned subsidiary (S Co) and an associate (A Co) in which the group has a 30% interest.

**CONSOLIDATION SCHEDULE**

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>P Co</th>
<th>S Co</th>
<th>A Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$1,400</td>
<td>600</td>
<td>800</td>
<td>300</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>770</td>
<td>370</td>
<td>400</td>
<td>120</td>
</tr>
<tr>
<td>Gross profit</td>
<td>630</td>
<td>230</td>
<td>400</td>
<td>180</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>290</td>
<td>110</td>
<td>180</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>340</td>
<td>120</td>
<td>220</td>
<td>100</td>
</tr>
<tr>
<td>Interest receivable</td>
<td>30</td>
<td>30</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Interest payable</td>
<td>(20)</td>
<td>–</td>
<td>(20)</td>
<td>–</td>
</tr>
<tr>
<td>Share of profit of associate (57 × 30%)</td>
<td>17</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>367</td>
<td>150</td>
<td>220</td>
<td>100</td>
</tr>
<tr>
<td>Income tax expense</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>(145)</td>
<td>(55)</td>
<td>(90)</td>
<td></td>
</tr>
<tr>
<td>Associate</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>(43)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td><strong>222</strong></td>
<td><strong>95</strong></td>
<td><strong>110</strong></td>
<td><strong>57</strong></td>
</tr>
<tr>
<td>Non-controlling interest (110 × 20%)</td>
<td>(22)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note the following:**

(a) Group sales revenue, group gross profit and costs such as depreciation and so on exclude the sales revenue, gross profit and costs of associated companies.

(b) The group share of the associate’s profits is credited to the group statement of profit or loss. If the associate has been acquired during the year, it would be necessary to deduct the pre-acquisition profits (remembering to allow for tax on current year profits).

(c) The non-controlling interest will only ever apply to subsidiary companies.

---

### 3.2 Pro-forma statement of profit or loss

The following is a **suggested layout** (using the figures given in the illustration above) for the consolidated statement of profit or loss for a company having subsidiaries as well as associates.

<table>
<thead>
<tr>
<th></th>
<th>$’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>1,400</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>(770)</td>
</tr>
<tr>
<td>Gross profit</td>
<td>630</td>
</tr>
<tr>
<td>Other income: interest receivable</td>
<td>30</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>(290)</td>
</tr>
<tr>
<td>Finance costs</td>
<td>(20)</td>
</tr>
<tr>
<td>Share of profit of associate</td>
<td>17</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>367</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>(145)</td>
</tr>
<tr>
<td>Profit for the year</td>
<td><strong>222</strong></td>
</tr>
<tr>
<td>Profit attributable to:</td>
<td></td>
</tr>
<tr>
<td>Parent</td>
<td>200</td>
</tr>
<tr>
<td>Non-controlling interest</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td><strong>222</strong></td>
</tr>
</tbody>
</table>
4 Consolidated statement of financial position

Section overview
In the consolidated statement of financial position the investment in associates should be shown as:

- Cost of the investment in the associate; plus
- Group share of post acquisition profits; less
- Amounts paid out as dividends by the investee to the investor; less
- Any amount written off the investment.

As explained earlier, the consolidated statement of financial position will contain an asset ‘Investment in associates’. The amount at which this asset is stated will be its original cost plus the group’s share of any profits earned since acquisition which have not been distributed as dividends less any impairment loss (see section 5.3).

Example: Consolidated statement of financial position
On 1 January 20X6 the net tangible assets of A Co amount to $220 000, financed by 100 000 ordinary shares and revenue reserves of $120 000. P Co, a company with subsidiaries, acquires 30 000 of the shares in A Co for $75 000. During the year ended 31 December 20X6 A Co’s profit after tax is $30 000, from which dividends of $12 000 are paid.

Show how P Co’s investment in A Co would appear in the consolidated statement of financial position at 31 December 20X6.

Solution
CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER 20X6 (extract)

<table>
<thead>
<tr>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
</tr>
<tr>
<td>Investment in associate</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>75 000</td>
</tr>
<tr>
<td>Group share of post-acquisition retained profits</td>
<td></td>
</tr>
<tr>
<td>(30% × $18 000)</td>
<td>5 400</td>
</tr>
<tr>
<td></td>
<td>80 400</td>
</tr>
</tbody>
</table>

Question 1: Associate
Set out below are the draft accounts of Parent Co and its subsidiaries and of Associate Co. Parent Co acquired 40% of the equity capital of Associate Co three years ago when the latter’s reserves stood at $40 000.

SUMMARISED STATEMENTS OF FINANCIAL POSITION

<table>
<thead>
<tr>
<th>Parent Co &amp; subsidiaries</th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible non-current assets</td>
<td>220</td>
<td>170</td>
</tr>
<tr>
<td>Investment in Associate at cost</td>
<td>60</td>
<td>–</td>
</tr>
<tr>
<td>Loan to Associate Co</td>
<td>20</td>
<td>–</td>
</tr>
<tr>
<td>Current assets</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Loan from Parent Co</td>
<td>–</td>
<td>(20)</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>200</td>
</tr>
<tr>
<td>Share capital (250 000 shares)</td>
<td>250</td>
<td>100</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>200</td>
</tr>
</tbody>
</table>
SUMMARISED STATEMENTS OF COMPREHENSIVE INCOME

<table>
<thead>
<tr>
<th></th>
<th>Parent Co &amp; subsidiaries</th>
<th>Associate Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit before tax</td>
<td>$95</td>
<td>$80</td>
</tr>
<tr>
<td>Income tax expense</td>
<td>$35</td>
<td>$30</td>
</tr>
<tr>
<td>Net profit for the year</td>
<td>$60</td>
<td>$50</td>
</tr>
</tbody>
</table>

You are required to prepare the summarised consolidated accounts of Parent Co.

Notes
1. Assume that the associate’s assets/liabilities are stated at fair value.
2. Assume that there are no non-controlling interests in the subsidiary companies.

(The answer is at the end of the chapter)

Question 2: Associate

Alfred Co bought a 25% shareholding on 31 December 20X8 in Grimbald Co at a cost of $38 000.

During the year to 31 December 20X9 Grimbald Co made a profit before tax of $82 000 and the taxation charge on the year’s profits was $32 000. A dividend of $20 000 was paid on 31 December out of these profits.

Calculate the entries for the associate which would appear in the consolidated accounts of the Alfred group, in accordance with the requirements of IAS 28.

(The answer is at the end of the chapter)

The following points are also relevant and are similar to a parent-subsidiary consolidation situation:

(a) Use financial statements drawn up to the same reporting date.

(b) If this is impracticable, adjust the financial statements for significant transactions/events in the intervening period. The difference between the reporting date of the associate and that of the investor must be no more than three months.

(c) Use uniform accounting policies for like transactions and events in similar circumstances, adjusting the associate’s statements to reflect group policies if necessary.

5 Adjustments

5.1 'Upstream' and 'downstream' transactions

'Upstream' transactions are, for example, sales of assets from an associate to the investor. 'Downstream' transactions are, for example, sales of assets from the investor to an associate.

Profits and losses resulting from 'upstream' and 'downstream' transactions between an investor (including its consolidated subsidiaries) and an associate are eliminated to the extent of the investor’s interest in the associate. This is very similar to the procedure for eliminating intra-group transactions between a parent and a subsidiary. The important thing to remember is that only the group’s share is eliminated.

Example: Downstream transaction

A Co, a parent with subsidiaries, holds 25% of the equity shares in B Co. During the year, A Co makes sales of $1 000 000 to B Co at cost plus a 25% mark-up. At the year-end, B Co has all these goods still in inventories.
Solution

A Co has made an unrealised profit of $200,000 ($1,000,000 \times \frac{25}{125}) on its sales to the associate. The group’s share (25%) of this must be eliminated:

<table>
<thead>
<tr>
<th>DEBIT</th>
<th>Share of profit of associates (consolidated statement of profit or loss) $50,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREDIT</td>
<td>Investment in associate (consolidated statement of financial position) $50,000</td>
</tr>
</tbody>
</table>

If the associate had made the sale to the parent, the adjustment would have been exactly the same.

5.2 Associate’s losses

When the equity method is being used and the investor’s share of losses of the associate equals or exceeds its interest in the associate, the investor should **discontinue** including its share of further losses. The investment is reported at nil value. The interest in the associate is normally the carrying amount of the investment in the associate, but it also includes any other long-term interests, for example, long-term receivables or loans.

After the investor’s interest is reduced to nil, **additional losses** should only be recognised where the investor has incurred obligations or made payments on behalf of the associate (for example, if it has guaranteed amounts owed to third parties by the associate).

5.3 Impairment losses

An investment in an associate may become impaired. Any impairment loss is recognised in accordance with IAS 36 **Impairment of assets** for each associate individually.

In the case of an associate, any accumulated impairment loss will be deducted from the carrying amount of the investment in the associate in the consolidated statement of financial position.

The working would be as follows:

\[
\begin{align*}
\text{Cost of investment} & \times \\
\text{Share of post-acquisition retained earnings} & \times \\
\text{Impairment loss} & (\times) \\
\text{Investment in associate} & \times
\end{align*}
\]

Any impairment loss arising in the year is charged against the group share of the associate’s profits recognised in the consolidated statement of profit or loss.

**Question 3: Consolidated statement of financial position**

The statements of financial position of J Co and its investee companies, P Co and S Co, at 31 December 20X5 are shown below:

| STATEMENTS OF FINANCIAL POSITION AS AT 31 DECEMBER 20X5 |
|-----------------|---------|---------|---------|
|                 | J Co    | P Co    | S Co    |
| Non-current assets |       |       |         |
| Freehold property | 1,950  | 1,250  | 500     |
| Plant and machinery | 795    | 375    | 285     |
| Investments      | 1,500  | –      | –       |
| **Total**        | **4,245** | **1,625** | **785** |
### 13: Associates and Equity Accounting

#### J Co  P Co  S Co

<table>
<thead>
<tr>
<th></th>
<th>J Co</th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td>575 $'000</td>
<td>300 $'000</td>
<td>265 $'000</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>330 $'000</td>
<td>290 $'000</td>
<td>370 $'000</td>
</tr>
<tr>
<td>Cash</td>
<td>50 $'000</td>
<td>120 $'000</td>
<td>20 $'000</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>955 $'000</td>
<td>710 $'000</td>
<td>655 $'000</td>
</tr>
</tbody>
</table>

| **Equity and liabilities** |         |         |         |
| **Equity**                |         |         |         |
| Share capital             | 2 000 $'000 | 1 000 $'000 | 750 $'000 |
| Retained earnings         | 1 460 $'000 | 885 $'000  | 390 $'000 |
| **Total equity**          | 3 460 $'000 | 1 885 $'000 | 1 140 $'000 |

| **Non-current liabilities** |         |         |         |
| 12% loan stock            | 500 $'000  | 100 $'000 |           |

| **Current liabilities**    |         |         |         |
| Trade payables             | 680 $'000  | 350 $'000 | 300 $'000 |
| Bank overdraft             | 560 $'000  |           |           |
| **Total equity and liabilities** | 1 240 $'000 | 350 $'000 | 300 $'000 |

**Additional information**

(a) J Co acquired 600 000 of the 1 million ordinary shares in P Co on 1 January 20X0 for $1 000 000 when the retained earnings of P Co were $200 000.

(b) At the date of acquisition of P Co, the fair value of its freehold property was considered to be $400 000 greater than its value in P Co’s statement of financial position. P Co had acquired the property in January 20W0 and the buildings element (comprising 50% of the total value) is depreciated on cost over 50 years.

(c) J Co acquired 225 000 of the 750 000 ordinary shares in S Co on 1 January 20X4 for $500 000 when the retained earnings of S Co were $150 000.

(d) P Co manufactures a component used by both J Co and S Co. Transfers are made by P Co at cost plus 25%. J Co held $100 000 inventory of these components at 31 December 20X5 and S Co held $80 000 at the same date.

(e) The goodwill in P Co is impaired and should be fully written off. An impairment loss of $92 000 is to be recognised on the investment in S Co.

(f) The non-controlling interest is valued at the proportionate share of net assets.

**Required**

Prepare, in a format suitable for inclusion in the annual report of the J Group, the consolidated statement of financial position at 31 December 20X5.

(The answer is at the end of the chapter)

### 6 Disclosures

**IFRS 12 Disclosure of interests in other entities** requires an entity to disclose information about:

(a) the nature, extent and financial effects of an entity’s interests in associates or joint arrangements, including name of the investee, principal place of business, the investor’s interest in the investee, method of accounting for the investee and restrictions on the investee’s ability to transfer funds to the investor

(b) the risks associated with an interest in an associate or joint venture

(c) summarised financial information, with separate disclosure for individual associates that are material to the reporting entity.
Key chapter points

- Accounting for associates is covered by IAS 28 *Investments in associates and joint ventures*.

- The investing company does not have control, as it does with a subsidiary, but it does have significant influence.

- In the consolidated statement of profit or loss the investing group takes credit for its share of the after-tax profits of associates whether or not they are distributed as dividends.

- In the consolidated statement of financial position the investment in associates should be shown as:
  - cost of the investment in the associate; plus
  - group share of post acquisition profits; less
  - amounts paid out as dividends by the investee to the investor; less
  - any amount written off the investment.

- The group share of any unrealised profit made on transactions between group companies and the associate should be eliminated against the investment in the associate.
Quick revision questions

1. Which of the following statements regarding group accounting is/are correct?
   
   I. Only the group’s share of the assets of a subsidiary is reflected in the consolidated statement of financial position.
   II. Only the group’s share of the net assets of an associate is reflected in the consolidated statement of financial position.
   III. The value of share capital in a consolidated statement of financial position will include the share capital of both the investor and the investee.

   A. I only
   B. II only
   C. III only
   D. none of the statements

2. Consul owns the following equity shareholdings in other entities:
   
<table>
<thead>
<tr>
<th>Entity</th>
<th>Shareholding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admiral</td>
<td>25%</td>
</tr>
<tr>
<td>Sultan</td>
<td>20%</td>
</tr>
<tr>
<td>Warrior</td>
<td>30%</td>
</tr>
</tbody>
</table>

   Consul has a seat on the board of each entity.
   Consul is the largest shareholding in Admiral (no other shareholdings are larger than 10%).
   Another entity owns 25% of the equity shares in Sultan and also has a seat on its board. No other individual or entity owns more than 5% of the equity share capital of Sultan.
   Another entity holds 70% of Warrior’s equity and has a seat on its board.

   Which entities are associates of Consul?
   
   A. Admiral, Sultan and Warrior
   B. Admiral and Sultan only
   C. Admiral and Warrior only
   D. Admiral only

3. Outlook has one subsidiary. On 1 January 20X7 Outlook purchased 30% of the share capital of View for $12 million. The summarised statement of financial position of View at 31 December 20X7 was as follows:

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets (at book value)</td>
<td>30</td>
</tr>
<tr>
<td>Share capital</td>
<td>10</td>
</tr>
<tr>
<td>Retained earnings at 1 January 20X7</td>
<td>15</td>
</tr>
<tr>
<td>Profit for the year ended 31 December 20X7</td>
<td>5</td>
</tr>
</tbody>
</table>

   At 1 January 20X7 the fair value of the net assets of View was $5 million greater than their book value. The difference relates to land which is still owned by View at 31 December 20X7.

   Using the equity method, at what value is the investment in View shown in the consolidated statement of financial position of the Outlook group at 31 December 20X7?

   A. $9m
   B. $10.5m
   C. $12m
   D. $13.5m
4 Savoy owns 80% of Spring and 30% of White. Spring also owns 15% of White. 

Extracts from the statements of comprehensive income for the year ended 31 December 20X7:

<table>
<thead>
<tr>
<th></th>
<th>Savoy</th>
<th>Spring</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>700</td>
<td>550</td>
<td>500</td>
</tr>
</tbody>
</table>

What is group gross profit for the year ended 31 December 20X7?
A $1,250,000  
B $1,365,000  
C $1,460,000  
D $1,475,000

5 The following statements refer to a situation where an investing company (K) seeks to exert control or influence over another company (L). Assume that K is required to prepare consolidated accounts because of other investments.

I If K owns more than 20%, but less than 50% of the equity shares in L, then L is bound to be an associate of K  
II If K controls the operating and financial policies of L, then L cannot be an associate of K  
III If L is an associate of K, then any amounts payable by L to K are not eliminated when preparing the consolidated statement of financial position of K

Which of the statements are true?
A II only  
B I and II only  
C I and III only  
D II and III only

6 As well as a 90% investment in T, S held 25% of the shares of U, and exerts a significant influence over it. U sells goods to S. During the year ending 31 March 20X4, U sells goods to S for $100,000. The cost of the goods to U is $80,000. At the year end, S’s inventories include $16,000 of goods purchased from U.

What adjustment is required in respect of unrealised profit in the consolidated statement of financial position?
A $nil  
B $800  
C $1,000  
D $3,200

7 GPX’s financial statements included an investment in associate at $6,600,000 in its consolidated statement of financial position at 30 September 20X5. At 30 September 20X6, the investment in associate had increased to $6,750,000. GPX’s pre-tax share of profit in the associate was $420,000, with a related tax charge of $180,000. The net amount of $240,000 was included in the consolidated statement of profit or loss for the year ended 30 September 20X6.

There were no impairments to the investment in associate, or acquisitions or disposals of shares during the financial year.

What dividend is paid to GPX by the associate in the year ended 30 September 20X6?
A $90,000  
B $240,000  
C $390,000  
D $420,000
8 Tami Co has investments in a number of subsidiary companies and on 1 August 20X8 acquired a 30% interest in Tiny Co. The investment cost $400 000. In the year ended 31 March 20X9, Tiny Co reported a profit after tax of $66 000. What amounts are reported in the group financial statements in respect of Tiny Co?

<table>
<thead>
<tr>
<th>Statement of financial position</th>
<th>Statement of profit or loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>A $400 000</td>
<td>$13 200</td>
</tr>
<tr>
<td>B $400 000</td>
<td>$19 800</td>
</tr>
<tr>
<td>C $413 200</td>
<td>$13 200</td>
</tr>
<tr>
<td>D $419 800</td>
<td>$19 800</td>
</tr>
</tbody>
</table>

9 Dune Group bought a 20% investment in Sand Co a number of years ago for $420 000. Since acquisition Sand Co has made $530 000 retained profits, $180 000 of which are made in the year ended 31 December 20X8. At this date, an impairment review was carried out on Sand Co and Dune's investment was found to be impaired by 5%.

What amount is reported as income from the associate in the consolidated statement of profit or loss?

A $9 700  
B $15 000  
C $30 740  
D $36 000

10 AB owns a controlling interest in another entity, CD, and exerts significant influence over EF, an entity in which it holds 30% of the ordinary share capital.

During the financial year ended 30 April 20X5, EF sold goods to AB valued at $80 000. The cost of the goods to EF was $60 000. 25% of the goods remained in AB's inventory at 30 April 20X5.

At the period end, AB held $90 000 inventory, CD held $38 000 and EF held $65 000.

What inventory figure is reported in the consolidated statement of financial position?

A $126 500  
B $128 000  
C $191 500  
D $193 000
1 B All of a subsidiary’s assets and liabilities are included in the consolidated statement of financial position and then an amount to reflect those not owned is shown in the form of the non-controlling interest.

Share capital in the consolidated statement of financial position is only ever the investor’s share capital.

2 B Consul cannot exercise significant influence over Warrior because it is controlled by another entity. However, it has the largest shareholdings and a board seat, so exercising significant influence, over Admiral. Sultan is not so clear. As another entity also has significant influence over Sultan, it is likely that Consul does too.

3 D

<table>
<thead>
<tr>
<th></th>
<th>$m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of investment</td>
<td>12.0</td>
</tr>
<tr>
<td>Group share of post-acquisition reserves (30% × 5)</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>13.5</td>
</tr>
</tbody>
</table>

4 A Group gross profit excludes the group’s share of the profit of the associate, which is reported on a separate line in the consolidated statement of profit or loss.

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savoy</td>
<td>700</td>
</tr>
<tr>
<td>Spring</td>
<td>550</td>
</tr>
<tr>
<td></td>
<td>1 250</td>
</tr>
</tbody>
</table>

5 D Statement (I) Untrue – There is a presumption that L would be an associate of K but this is rebuttable for example if another party held say 70% of the shares while K only held 30%.

Statement (II) True – If K controls L then L will be a subsidiary, not an associate.

Statement (III) True – There is no elimination of balances for an associate as the associate is not part of the group.

6 B Mark up on cost = 20 000/80 000 × 100% = 25%

Unrealised profit = $16 000 × 25/125 × 25% = $800

7 A

<table>
<thead>
<tr>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment brought forward</td>
</tr>
<tr>
<td>Profit after tax (420 000 – 180 000)</td>
</tr>
<tr>
<td>Dividends paid (bal fig)</td>
</tr>
<tr>
<td>Investment carried forward</td>
</tr>
</tbody>
</table>

8 C Share of profit of associate: 30% × 8/12 × $66 000 = $13 200

Carrying amount of associate: $400 000 + $13 200 = $413 200

9 A

<table>
<thead>
<tr>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from associate (20% × $180 000)</td>
</tr>
<tr>
<td>Impairment in associate (see below)</td>
</tr>
<tr>
<td>Cost of investment</td>
</tr>
<tr>
<td>Share of post acquisition profits (20% × 530 000)</td>
</tr>
<tr>
<td>Impairment (5% × 526 000)</td>
</tr>
</tbody>
</table>
AB’s inventory  90 000
CD’s inventory   38 000
128 000

The unrealised profit is $5 000 and the inventory is still held by AB. As EF is an associate, the adjustment is to credit investment in associate, not inventory (the amount is only the group share of the unrealised profit $30\% \times 5 000 = $1 500).

Remember that the associate’s inventory is not added across on a line by line basis; therefore EF’s $65 000 is not included in group inventory.
Answers to chapter questions

1  PARENT CO
CONsolidated statement of profit or loss  $'000
Net profit  95
Share of profits of associate (50 × 40%)  20
Profit before tax  115
Income tax expense  (35)
Profit attributable to the members of Parent Co  80

PARENT CO
CONsolidated statement of financial position  $'000
Assets
Tangible non-current assets  220
Investment in associate (see note)  104
Current assets  100
Total assets  424
Equity and liabilities
Share capital  250
Retained earnings (W)  174
Total equity and liabilities  424

Note
Investment in associate
Cost of investment  60
Share of post-acquisition retained earnings (W)  24
Loan to associate  20
104

Working
Parent &  Subsidiaries  Associate
Retained earnings  $'000  $'000
Per question  150  100
Pre-acquisition  40
Post-acquisition  60
Group share in associate
($60 × 40%)  24
Group retained earnings  174

2  CONsolidated statement of profit or loss  $
Group share of profit of associate (82 000 × 25%)  20 500
Less taxation (32 000 × 25%)  (8 000)
Share of profit of associate  12 500

CONsolidated statement of financial position  $
Investment in associate  45 500

Working
Cost of investment  38 000
Share of post-acquisition retained earnings ((82 000 – 32 000 – 20 000) × 25%)  7 500
45 500
J GROUP CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X5

Non-current assets
Freehold property (W2)  $3,570.0
Plant and machinery (795 + 375)  $1,170.0
Investment in associate (W9)  $475.2
Total  $5,215.2

Current assets
Inventory (W3)  $855.0
Receivables (W4)  $620.0
Cash (50 + 120)  $170.0
Total  $1,645.0

Total assets  $6,860.2

Equity and liabilities
Equity
Share capital  $2,000.0
Retained earnings (W10)  $1,776.2
Total equity  $3,776.2
Non-controlling interest (W11)  $894.0
Total  $4,670.2

Non-current liabilities
12% loan stock (500 + 100)  $600.0
Current liabilities (W5)  $1,590.0
Total equity and liabilities  $6,860.2

Workings
1 Group structure

2 Freehold property

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>J Co</td>
<td>P Co</td>
<td>S</td>
</tr>
<tr>
<td>1.1.X0 (6 years ago)</td>
<td>60%</td>
<td>30%</td>
</tr>
<tr>
<td>J</td>
<td>P</td>
<td>S</td>
</tr>
</tbody>
</table>

Freehold property $'000
J Co 1,950
P Co 1,250
Fair value adjustment 400
Additional depreciation (400 × 50% + 40) × 6 years (20X0-20X5) (30)
Total 3,570

3 Inventory

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J Co</td>
<td>P Co</td>
</tr>
</tbody>
</table>

Inventory $'000
J Co 575
P Co 300
PUP (100 × 25/125) (20)
Total 855

4 Receivables

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J Co</td>
<td>P Co</td>
</tr>
</tbody>
</table>

Receivables $'000
J Co 330
P Co 290
Total 620

5 Current liabilities

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J Co: bank overdraft</td>
<td>trade payables</td>
</tr>
<tr>
<td>P Co: trade payables</td>
<td></td>
</tr>
</tbody>
</table>

Current liabilities $'000
J Co: bank overdraft 560
trade payables 680
P Co: trade payables 350
Total 1,590

$'000
6 Unrealised profit (PUP)

On sales to J (parent co) $100 × 25/125 = 20.0
On sales to S (associate) $80 × 25/125 × 30% = 4.8

7 Fair value adjustments

<table>
<thead>
<tr>
<th>Description</th>
<th>Difference at acquisition</th>
<th>Difference now</th>
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<tbody>
<tr>
<td>Property</td>
<td>$400</td>
<td>$400</td>
</tr>
<tr>
<td>Additional depreciation: 200 × 6/40</td>
<td></td>
<td>(30)</td>
</tr>
<tr>
<td>400</td>
<td></td>
<td>370</td>
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</table>

.: Charge $30 000 to retained earnings

8 Goodwill

<table>
<thead>
<tr>
<th>Description</th>
<th>$'000</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>P Co</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consideration transferred</td>
<td>1 000</td>
<td></td>
</tr>
<tr>
<td>Net assets acquired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share capital</td>
<td>1 000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Fair value adjustment</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>1 600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group share 60%</td>
<td>(960)</td>
<td>40</td>
</tr>
<tr>
<td>Goodwill at acquisition</td>
<td></td>
<td>(40)</td>
</tr>
<tr>
<td>Impairment loss</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

9 Investment in associate

<table>
<thead>
<tr>
<th>Description</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of investment</td>
<td>500.00</td>
</tr>
<tr>
<td>Share of post-acquisition profit</td>
<td>72.00</td>
</tr>
<tr>
<td>Less PUP</td>
<td>(4.80)</td>
</tr>
<tr>
<td>Less impairment loss</td>
<td>(92.00)</td>
</tr>
<tr>
<td>475.20</td>
<td></td>
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</tbody>
</table>

10 Retained earnings

<table>
<thead>
<tr>
<th>Description</th>
<th>J</th>
<th>P</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>$'000</td>
<td>$'000</td>
<td>$'000</td>
<td></td>
</tr>
<tr>
<td>Retained earnings per question</td>
<td>1 460.0</td>
<td>885.0</td>
<td>390.0</td>
</tr>
<tr>
<td>Adjustments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrealised profit (W6)</td>
<td>(20.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fair value adjustments (W7)</td>
<td>(30.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>835.0</td>
<td>390.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less pre-acquisition reserves</td>
<td>(200.0)</td>
<td>(150.0)</td>
<td></td>
</tr>
<tr>
<td>1 460.0</td>
<td>635.0</td>
<td>240.0</td>
<td></td>
</tr>
<tr>
<td>P: 60% × 635</td>
<td>381.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S: 30% × 240</td>
<td>72.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less PUP on sales to associate (W6)</td>
<td>(4.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less impairment losses : P</td>
<td>(40.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>(92.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 776.2</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

11 Non-controlling interest at reporting date

<table>
<thead>
<tr>
<th>Description</th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets of P Co</td>
<td>1 885.0</td>
</tr>
<tr>
<td>Fair value adjustment (W7)</td>
<td>370.0</td>
</tr>
<tr>
<td>Less PUP: sales to J Co</td>
<td>(20.0)</td>
</tr>
<tr>
<td>2 235.0</td>
<td></td>
</tr>
<tr>
<td>Non-controlling interest (40%)</td>
<td>894.0</td>
</tr>
</tbody>
</table>
Chapter 14

Analysis of financial statements

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Reference</th>
</tr>
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<tbody>
<tr>
<td>Ratio analysis and interpretation of financial statements</td>
<td>LOS5</td>
</tr>
<tr>
<td>Prepare a comparative analysis of financial statements</td>
<td>LOS5.1</td>
</tr>
<tr>
<td>Identify and apply the tools of financial statement analysis</td>
<td>LOS5.2</td>
</tr>
<tr>
<td>Identify and calculate ratios, describe their purpose and use in analysing an entity’s liquidity, profitability and solvency</td>
<td>LOS5.3</td>
</tr>
<tr>
<td>Explain ratio interrelationships</td>
<td>LOS5.4</td>
</tr>
<tr>
<td>Analyse and interpret a set of financial statements using ratios</td>
<td>LOS5.5</td>
</tr>
<tr>
<td>Explain the limitations of financial statement analysis</td>
<td>LOS5.6</td>
</tr>
</tbody>
</table>

Topic list

1. Introduction to financial analysis
2. Profitability
3. Solvency
4. Liquidity and efficiency
5. Investor ratios
6. Comprehensive question
7. Limitations of financial analysis
Introduction

This chapter looks at **interpretation of financial statements**. We deal here with the calculation of ratios and how they can be analysed and interpreted. We shall also consider the limitations of financial analysis.

The chapter content is summarised in the diagram below.
Before you begin

If you have studied these topics before, you may wonder whether you need to study this chapter in full. If this is the case, please attempt the questions below, which cover some of the key subjects in the area.

If you answer all these questions successfully, you probably have a reasonably detailed knowledge of the subject matter, but you should still skim through the chapter to ensure that you are familiar with everything covered.

There are references in brackets indicating where in the chapter you can find the information, and you will also find a commentary at the back of the Study Manual.

1. What is horizontal analysis of financial statements? (Section 1)
2. What is trend analysis? (Section 1)
3. What are the broad groups of ratios that are relevant in any financial analysis? (Section 1.1)
4. How is return on investment (ROI) calculated? (Section 2.1)
5. What does ROI indicate? (Section 2.1)
6. How is asset turnover calculated? (Section 2.2)
7. What does asset turnover indicate? (Section 2.2)
8. What ratios indicate solvency? (Section 3)
9. What are the risks associated with a high level of leverage? (Section 3.2)
10. How is the current ratio calculated? (Section 4.2)
11. What is the difference between the current and quick ratio? (Section 4.2)
12. How is receivables’ days calculated? (Section 4.3)
13. What does inventory days indicate? (Section 4.5)
14. What may an increase in payables’ days indicate? (Section 4.7)
15. How is earnings per share calculated? (Section 5.1)
16. What do dividend cover and dividend yield indicate? (Sections 5.2 and 5.4)
17. What is the significance of a high P/E ratio? (Section 5.3)
18. What are the limitations of financial statements? (Sections 7.1 to 7.3)
19. What are the limitations of financial analysis? (Section 7.4)
1 Introduction to financial analysis

Section overview

- Financial analysis requires the financial statements and ratios of a company to be compared, for example with industry averages.

If you were to look at a statement of financial position or statement of profit or loss and other comprehensive income, how would you decide whether the company was doing well or badly? Or whether it was financially strong or financially vulnerable?

Financial analysis is the practice of reviewing financial statements in order to answer these questions. It can be broken down into different types:

1. **Horizontal analysis** involves comparing one company’s financial statements directly with those of another similar company and considering why differences may be evident. For example, one company may have a higher profit than another with a similar revenue. A review of expenses may reveal that company to have lower interest costs which explains the difference. This may then be linked into the statements of financial position where the more profitable company will have lower debt than the other company.

2. **Trend analysis** is a similar exercise, but this time involving a comparison of the financial statements of one company with those of the previous year. This form of analysis is useful in assessing ongoing performance of a company, particularly when analysis relates to a number of years.

3. **Ratio analysis** is the practice of analysing amounts reported within the financial statements in order to calculate further values which may add to the findings of basic horizontal or trend analysis. A ratio which should already be familiar to you is that of gross profit margin. The majority of this chapter relates to common ratios which may be calculated and what they mean. As with other forms of analysis, there must be some form of comparative or benchmark for ratios. This may be ratios calculated for a competitor, for the same company in previous years, or industry averages.

1.1 Ratio analysis

Broadly speaking, basic ratios can be grouped into four categories:

- Profitability
- Solvency
- Liquidity/Efficiency
- Investor ratios

Within each heading we will identify a number of standard measures or ratios that are normally calculated and generally accepted as meaningful indicators. Each individual business must be considered separately however, and a ratio that is meaningful for a manufacturing company may be completely meaningless for a financial institution.

It must be stressed that ratio analysis on its own is not sufficient for interpreting company financial statements, and that there are other items of information which should be looked at, for example:

(a) The content of any accompanying commentary on the financial statements and other statements

(b) The age and nature of the company’s assets

(c) Current and future developments in the company’s markets, at home and overseas, recent acquisitions or disposals of a subsidiary by the company

(d) Unusual items separately disclosed in the statement of profit or loss and other comprehensive income

(e) Any other noticeable features of the report and financial statements, such as events after the end of the reporting period, contingent liabilities, a qualified auditors’ report, the company’s taxation position, and so on.
Example: Calculating ratios

To illustrate the calculation of ratios throughout this chapter, the following draft statement of financial position and statement of profit or loss figures will be used. Note there are no items of other comprehensive income.

FURLONG CO STATEMENT OF PROFIT OR LOSS
FOR THE YEAR ENDED 31 DECEMBER 20X8

<table>
<thead>
<tr>
<th>Notes</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Revenue</td>
<td>1</td>
<td>3 095 576</td>
</tr>
<tr>
<td>Operating profit</td>
<td>1</td>
<td>359 501</td>
</tr>
<tr>
<td>Interest</td>
<td>2</td>
<td>17 371</td>
</tr>
<tr>
<td>Profit before taxation</td>
<td></td>
<td>342 130</td>
</tr>
<tr>
<td>Income tax expense</td>
<td></td>
<td>74 200</td>
</tr>
<tr>
<td>Profit for the year</td>
<td></td>
<td>267 930</td>
</tr>
<tr>
<td>Earnings per share</td>
<td></td>
<td>12.8c</td>
</tr>
</tbody>
</table>

FURLONG CO STATEMENT OF FINANCIAL POSITION
AS AT 31 DECEMBER 20X8

<table>
<thead>
<tr>
<th>Notes</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property, plant and equipment</td>
<td></td>
<td>802 180</td>
</tr>
<tr>
<td>Current assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td>3</td>
<td>1 002 701</td>
</tr>
<tr>
<td>Receivables</td>
<td>3</td>
<td>1 327</td>
</tr>
<tr>
<td>Cash at bank and in hand</td>
<td></td>
<td>1 068 450</td>
</tr>
<tr>
<td>Total assets</td>
<td></td>
<td>1 870 630</td>
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<tr>
<td>Equity and liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ordinary shares (2.1 million)</td>
<td>5</td>
<td>210 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td></td>
<td>699 899</td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td></td>
<td>909 899</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10% loan stock 20X4/20Y0</td>
<td></td>
<td>100 000</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>4</td>
<td>860 731</td>
</tr>
<tr>
<td>Total equity and liabilities</td>
<td></td>
<td>1 870 630</td>
</tr>
</tbody>
</table>

NOTES TO THE ACCOUNTS

<table>
<thead>
<tr>
<th>20X8</th>
<th>20X7</th>
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<tbody>
<tr>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>1 Sales revenue and profit</td>
<td></td>
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<tr>
<td>Sales revenue</td>
<td>3 095 576</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>2 402 609</td>
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<tr>
<td>Gross profit</td>
<td>692 967</td>
</tr>
<tr>
<td>Administration expenses</td>
<td>333 466</td>
</tr>
<tr>
<td>Operating profit</td>
<td>359 501</td>
</tr>
<tr>
<td>Depreciation charged</td>
<td>15 107</td>
</tr>
<tr>
<td>2 Interest</td>
<td></td>
</tr>
<tr>
<td>Bank overdrafts and other loans</td>
<td>8 115</td>
</tr>
<tr>
<td>Loan stock</td>
<td>10 000</td>
</tr>
<tr>
<td>Short-term deposits</td>
<td>744</td>
</tr>
<tr>
<td>Net interest expense</td>
<td>17 371</td>
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</table>
### Receivables

Amounts falling due within one year

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<thead>
<tr>
<th>Description</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade receivables</td>
<td>905 679</td>
<td>807 712</td>
</tr>
<tr>
<td>Prepayments and accrued income</td>
<td>97 022</td>
<td>45 729</td>
</tr>
<tr>
<td></td>
<td><strong>1 002 701</strong></td>
<td><strong>853 441</strong></td>
</tr>
</tbody>
</table>

### Current liabilities

<table>
<thead>
<tr>
<th>Description</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade payables</td>
<td>627 018</td>
<td>545 340</td>
</tr>
<tr>
<td>Accruals and deferred income</td>
<td>81 279</td>
<td>280 464</td>
</tr>
<tr>
<td>Income taxes</td>
<td>108 000</td>
<td>37 200</td>
</tr>
<tr>
<td>Other taxes</td>
<td>44 434</td>
<td>32 652</td>
</tr>
<tr>
<td></td>
<td><strong>860 731</strong></td>
<td><strong>895 656</strong></td>
</tr>
</tbody>
</table>

### Called-up share capital

<table>
<thead>
<tr>
<th>Description</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorised ordinary shares</td>
<td>1 000 000</td>
<td>1 000 000</td>
</tr>
<tr>
<td>Issued and fully paid ordinary shares</td>
<td>210 000</td>
<td>210 000</td>
</tr>
</tbody>
</table>

### Dividends paid

<table>
<thead>
<tr>
<th>Description</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20 000</td>
<td>–</td>
</tr>
</tbody>
</table>

---

### Profitability

**Section overview**

- Return on investment (ROI), and return on equity (ROE) may be used by the shareholders or the Board to assess the profitability of an entity and the performance of its management.

In our example, the company made a profit in both 20X8 and 20X7, and there was an increase in profit between one year and the next:

(a) of 52% before taxation  
(b) of 39% after taxation.

**Profit before taxation** is generally thought to be a better figure to use than profit after taxation, because there might be unusual variations in the tax charge from year to year which would not affect the underlying profitability of the company's operations.

Another profit figure that should be calculated is **EBIT**, earnings before interest and tax. This is the amount of profit which the company earned before having to pay interest to the providers of loan capital, such as loan notes and medium-term bank loans, which will be shown in the statement of financial position as non-current liabilities.

**Formula to learn**

**Earnings before interest and tax** is therefore:

(a) The profit on ordinary activities before taxation; **plus**  
(b) Interest charges on loan capital.

Published financial statements do not always give sufficient detail on interest payable to determine how much is interest on long-term finance. We will assume in our example that the whole of the interest expense ($18 115, note 2) relates to long-term finance.

**EBIT** in our example is therefore:

<table>
<thead>
<tr>
<th>Description</th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit before tax</td>
<td>342 130</td>
<td>225 102</td>
</tr>
<tr>
<td>Interest expense</td>
<td>18 115</td>
<td>21 909</td>
</tr>
<tr>
<td>EBIT</td>
<td><strong>360 245</strong></td>
<td><strong>247 011</strong></td>
</tr>
</tbody>
</table>

This shows a 46 per cent growth between 20X7 and 20X8.
2.1 Return on investment (ROI)

It is impossible to assess profits or profit growth properly without relating them to the amount that has been invested in the company in order to earn the profits. The most important profitability ratio is therefore return on investment (ROI) which states the profit as a percentage of the amount of capital invested.

**Investment** (sometimes called capital employed) = Shareholders’ equity plus non-current liabilities (or total assets less current liabilities)

Return on investment is sometimes called Return on capital employed (ROCE)

**Formula to learn**

\[
\text{ROI} = \frac{\text{Earnings before interest and taxation}}{\text{Total assets less current liabilities}} \times 100\%
\]

The underlying principle is that we must compare like with like, and so if investment (capital) means share capital and reserves plus non-current liabilities and debt capital, profit must mean the profit earned by all this capital together. This is EBIT, since interest is the return for loan capital.

In our example, investment = 20X8 $1,870,630 – $860,731 = $1,009,899  
20X7 $1,664,425 – $895,656 = $768,769

These total figures are the total assets less current liabilities figures for 20X8 and 20X7 in the statement of financial position.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Assets Less Current Liabilities</th>
<th>ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X8</td>
<td>$360,245</td>
<td>35.7%</td>
</tr>
<tr>
<td>20X7</td>
<td>$247,011</td>
<td>32.1%</td>
</tr>
</tbody>
</table>

What does a company’s ROI tell us? What should we be looking for? There are three comparisons that can be made:

(a) The change in ROI from one year to the next can be examined. In this example, there has been an increase in ROI by about 4 percentage points from its 20X7 level.

(b) The ROI being earned by other companies, if this information is available, can be compared with the ROI of this company. Here the information is not available.

(c) A comparison of the ROI with current market borrowing rates may be made:
   (i) What would be the cost of extra borrowing to the company if it needed more loans, and is it earning a ROI that suggests it could make profits to make such borrowing worthwhile?
   (ii) Is the company making a ROI which suggests that it is getting value for money from its current borrowing?
   (iii) Companies are in a risk business and commercial borrowing rates are a good independent yardstick against which company performance can be judged.

In this example, if we suppose that current market interest rates, say, for medium-term borrowing from banks, are around 10 per cent, then the company’s actual ROI of 36 per cent in 20X8 would not seem low. On the contrary, it might seem high.

However, it is easier to spot a low ROI than a high one, because there is always a chance that the company’s non-current assets, especially property, are undervalued in its statement of financial position, and so the investment figure might be unrealistically low. If the company had earned a ROI, not of 36 per cent, but of, say only 6 per cent, then its return would have been below current borrowing rates and so disappointingly low.
2.2 Analysing profitability and return in more detail: the secondary ratios

We often sub-analyse ROI, to find out more about why the ROI is high or low, or better or worse than last year. There are two factors that contribute towards a return on investment, both related to sales revenue:

(a) **Profit margin.** A company might make a high or low profit margin on its sales. For example, a company that makes a profit of 25c per $1 of sales is making a bigger return on its revenue than another company making a profit of only 10c per $1 of sales.

(b) **Asset turnover.** Asset turnover is a measure of how well the assets of a business are being used to generate sales. For example, if two companies each have assets of $100 000 and Company A makes sales of $400 000 per annum whereas Company B makes sales of only $200 000 per annum, Company A is making a higher revenue from the same amount of assets (twice as much asset turnover as Company B) and this will help A to make a higher return on investment than B. Asset turnover is expressed as ‘x times’ so that assets generate x times their value in annual sales. Here, Company A’s asset turnover is 4 times and B’s is 2 times.

Profit margin and asset turnover together explain the ROI and if the ROI is the primary profitability ratio, these other two are the secondary ratios. The relationship between the three ratios can be shown mathematically.

**Formula to learn**

\[
\text{Profit margin} \times \text{Asset turnover} = \text{ROI}
\]

\[
\frac{\text{EBIT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Investment}} = \frac{\text{EBIT}}{\text{Investment}}
\]

In our example:

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X7</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profit margin</strong></td>
<td><strong>Asset turnover</strong></td>
<td><strong>ROI</strong></td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>$360 245</td>
<td>$3 095 576</td>
<td>$360 245</td>
</tr>
<tr>
<td></td>
<td>$3 095 576</td>
<td>$1 009 899</td>
<td>$1 009 899</td>
</tr>
<tr>
<td></td>
<td>11.64% 3.07 times = 35.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)</td>
<td>$247 011</td>
<td>$1 909 051</td>
<td>$247 011</td>
</tr>
<tr>
<td></td>
<td>$1 909 051</td>
<td>$768 769</td>
<td>$768 769</td>
</tr>
<tr>
<td></td>
<td>12.94% 2.48 times = 32.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this example, the company’s improvement in ROI between 20X7 and 20X8 is attributable to both a higher asset turnover. Indeed, the profit margin has fallen a little, but the higher asset turnover has more than compensated for this.

It is also worth commenting on the change in sales revenue from one year to the next. You may already have noticed that Furlong achieved sales growth of over 60 per cent from $1.9 million to $3.1 million between 20X7 and 20X8. This is very strong growth, and this is certainly one of the most significant items in the statement of profit or loss and statement of financial position.

2.2.1 A warning about comments on profit margin and asset turnover

It might be tempting to think that a high profit margin is good, and a low asset turnover means sluggish trading. In broad terms, this is so. There is a trade-off between profit margin and asset turnover, and you cannot consider one without allowing for the other:

(a) **A high profit margin** means a high profit per $1 of sales, but if this also means that sales prices are high, there is a strong possibility that sales revenue will be depressed, and so asset turnover lower.

(b) **A high asset turnover** means that the company is generating a lot of sales, but to do this it might have to keep its prices down and so accept a low profit margin per $1 of sales.
Consider the following:

<table>
<thead>
<tr>
<th>Company A</th>
<th>Company B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Investment (net assets)</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>EBIT</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

These figures would give the following ratios.

\[
\text{ROI} = \frac{\text{EBIT}}{\text{Investment (net assets)}} = \frac{200,000}{1,000,000} = 20\%
\]

\[
\text{Profit margin} = \frac{\text{EBIT}}{\text{Sales revenue}} = \frac{200,000}{1,000,000} = 20\%
\]

\[
\text{Asset turnover} = \frac{\text{Sales revenue}}{\text{Investment (net assets)}} = \frac{1,000,000}{1,000,000} = 1
\]

The companies have the same ROI, but it is arrived at in a very different fashion. Company A operates with a low asset turnover and a comparatively high profit margin whereas company B carries out much more business, but on a lower profit margin. Company A could be operating at the luxury end of the market, while company B is operating at the popular end of the market. Alternatively, company A and company B could be operating in different industry sectors.

### 2.2.2 Return on assets (ROA)

Return on assets (ROA) is another version of ROI. It is calculated using average total assets, rather than total assets less current liabilities. The statement of financial position of Furlong Co shows total assets for 20X8 as $1,870,630 and total assets for 20X7 as $1,664,425.

**Formula to learn**

\[
\text{Return on assets (ROA)} = \frac{\text{Earnings before interest and tax}}{\text{Average total assets}} \times 100\%
\]

ROI shows the return on the total capital employed in financing the business (shareholders’ funds plus borrowings) and asset turnover based on capital employed shows the sales revenue generated by that capital. **ROA shows the return on the assets employed in the business** and asset turnover based on assets shows the sales revenue generated by those assets.

In our example:

\[
\begin{align*}
\text{ROA} & = \frac{\text{Earnings before interest and tax}}{\text{Average total assets}} \times 100\% \\
20X8 & = \frac{\$360,245}{\$1,767,527} = 20.3\% \\
20X7 & = \frac{\$247,011}{\$1,664,425} = 14.8\%
\end{align*}
\]

The average assets for 20X8 are calculated as: \(\frac{1,870,630 + 1,664,425}{2} = 1,767,527\). We do not have the information needed to calculate an average for 20X7, so the 20X7 ROA is based on year end assets.

As before, the ratio can be analysed further:

\[
\begin{array}{ccc}
\text{Profit margin} & \text{Asset turnover} & \text{ROA} \\
\text{(average total assets)} & & \\
(a) & \frac{\$360,245}{\$3,095,576} & \frac{\$309,576}{\$1,767,527} & \frac{\$360,245}{\$1,767,527} \\
& 11.64\% \times 1.75 \text{ times} & = & 20.3\% \\
(b) & \frac{\$247,011}{\$1,909,051} & \frac{\$1,909,051}{\$1,664,425} & \frac{\$247,011}{\$1,664,425} \\
& 12.94\% \times 1.14 \text{ times} & = & 14.8\%
\end{array}
\]
Return on assets and asset turnover based on total assets are often used to assess the performance of management as management are responsible for using the entity’s assets to generate profit.

What is considered an acceptable return on assets normally depends upon the type of business and therefore how many assets are recognised in the financial statements. For example, a manufacturer will have (and will depend on) a high level of tangible assets (plant, machinery and factory buildings) in order to generate revenue and profits. Other types of business, such as a service provider, will not. A service provider relies on the expertise of its staff in order to generate profit. Human resources and intellectual capital are intangible assets, but because they cannot be measured reliably they are not recognised as assets in the statement of financial position. For this reason, ROA and asset turnover can be relatively meaningless for some types of business such as information technology companies.

ROA can also be calculated for separate categories of assets. For example, many companies might calculate a return on operating assets (normally property, plant and equipment).

\[
\text{Earnings before interest and tax} \\
\text{Tangible non - current assets}
\]

This measures the profit generated on the assets that are actually used to manufacture and/or sell goods.

2.3 Return on equity (ROE)

Return on equity is another variation on return on investment (ROI). It looks at profit from the perspective of equity investors. It measures the return that equity investors can obtain on the funds that they have invested. (This contrasts with ROI, which measures return on investment for the company as a whole.)

**Formula to learn**

\[
\text{ROE} = \frac{\text{Profit after tax and preference dividend}}{\text{Shareholders’ equity}} \times 100\%
\]

As before, we must compare like with like. The return on equity shareholders’ funds is the profit that ‘belongs’ to them: profit after interest, tax and preference dividends.

In our example, ROE is calculated as follows:

\[
\begin{align*}
\text{ROE} & \quad 20X8 & \quad 20X7 \\
\text{\$267 930} & = 29.4\% & \text{\$193 830} = 29\% \\
\text{\$909 899} & & \text{\$668 769} \\
\end{align*}
\]

ROE is regarded as an important overall measure of the way in which management use the company’s assets to generate profits for shareholders. It is used in a similar way to ROI and ROA:

(a) It is compared with the ROE of previous periods; the ROE of other companies; and with current market rates of borrowing.

(b) It is analysed into its secondary components.

2.3.1 Analysing ROE

ROE can be broken down into three separate components:

(a) Profit margin.

(b) Asset turnover

(c) Leverage or gearing
Formula to learn

Profit margin \times \text{Asset turnover} \times \text{Assets to equity} = \text{ROE}

\[
\frac{\text{Sales} - \text{Sales preference dividend}}{\text{Sales}} \times \frac{\text{Assets}}{\text{Assets equity}} = \text{ROE}
\]

In our example:

\[
\begin{array}{cccc}
\text{Net profit margin} & \text{Asset turnover (net assets)} & \text{Assets to equity} & \text{ROE} \\
\hline
(\text{a}) & 20X8 & $267,930 & $3,095,576 & $1,009,899 & $267,930 \\
& & $3,095,576 & $1,009,899 & $909,899 & $909,899 \\
& & 8.65\% & 3.06 \text{ times} & 1.11 \text{ times} & 29.4\% \\
(\text{b}) & 20X7 & $193,830 & $1,909,051 & $768,769 & $193,830 \\
& & $1,909,051 & $768,769 & $668,769 & $668,769 \\
& & 10.15\% & 2.48 \text{ times} & 1.15 \text{ times} & 29\%
\end{array}
\]

From this analysis, we can see that ROE has stayed more or less the same over the two years. This is deceptive. Net profit margin has fallen by 1.5 per cent but (as we saw earlier) asset turnover has risen. The company is less profitable but the assets are being used more efficiently than before. The assets to equity ratio (also known as the equity multiplier) has fallen slightly. Shareholders’ equity has increased, while the amount of debt has remained the same. This indicates that the company’s gearing, or leverage, has fallen slightly.

Gearing will be discussed in more detail later in this chapter, but the fact that gearing has fallen means that there is now slightly less risk attached to the shareholders’ investment.

Suppose that a company has the following ratios:

\[
\begin{array}{cccc}
\text{Net profit margin} & \text{Asset turnover (net assets)} & \text{Assets to equity} & \text{ROE} \\
\hline
(\text{a}) & 20X9 & 7.5\% & 2 \text{ times} & 2 \text{ times} & 30\% \\
(\text{b}) & 20X8 & 10\% & 2.5 \text{ times} & 1.1 \text{ times} & 27.5\%
\end{array}
\]

This company is showing an increase in ROE despite the fact that both its net profit margin and asset turnover have fallen. The increase in ROE has been caused by the sharp increase in the assets to equity ratio, but this is a very worrying sign. The company is less profitable and fewer sales are being generated from the company’s assets than before. In addition, gearing has risen because the company has taken on more long-term debt. The shareholders appear to be receiving a slightly better return on their investment, but they are also bearing much more risk.

2.4 Gross profit margin, net profit margin and profit analysis

Depending on the format of the statement of profit or loss and other comprehensive income, you may be able to calculate the gross profit margin as well as the net (operating) profit margin (based on earnings before interest and tax). Looking at the two together can be quite informative.
For example, suppose that a company has the following summarised statement of profit or loss for two consecutive years:

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$70,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>$42,000</td>
<td>$55,000</td>
</tr>
<tr>
<td>Gross profit</td>
<td>$28,000</td>
<td>$45,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>$21,000</td>
<td>$35,000</td>
</tr>
<tr>
<td>Net profit</td>
<td>$7,000</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

Although the net profit margin is the same for both years at 10 per cent, the gross profit margin is not.

In year 1 it is: $28,000 = 40%  
$70,000

and in year 2 it is: $45,000 = 45%  
$100,000

The improved gross profit margin has not led to an improvement in the net profit margin. This is because expenses as a percentage of sales have risen from 30 per cent in year 1 to 35 per cent in year 2.

3 Solvency

Solvency

Section overview

- Solvency is the availability of cash over the longer term to meet financial commitments as they fall due.

Debt ratios are concerned with how much the company owes in relation to its size, whether it is getting into more debt or improving its situation, and whether its debt burden seems heavy or light.

(a) When a company is heavily in debt, banks and other potential lenders may be unwilling to advance further funds.

(b) When a company is earning only a modest profit before interest and tax, and has a heavy debt burden, there will be very little profit left over for shareholders after the interest charges have been paid. And so if interest rates were to rise (on bank overdrafts and so on) or the company were to borrow even more, it might soon be incurring interest charges in excess of EBIT. This might eventually lead to the liquidation of the company.

These are two big reasons why companies should keep their debt burden under control. There are two ratios that are particularly worth looking at, the gearing ratio and interest cover.

3.1 Gearing/leverage

Gearing or leverage is concerned with a company's long-term capital structure. We can think of a company as consisting of non-current assets and net current assets (i.e. working capital, which is current assets minus current liabilities). These assets must be financed by long-term capital of the company, which is one of two things:

(a) Issued share capital which can be divided into:

   (i) Ordinary shares plus other equity (e.g. reserves)
   (ii) Non-redeemable preference shares (unusual)

(b) Long-term debt including redeemable preference shares.

Preference share capital is normally classified as a non-current liability in accordance with IAS 32, and preference dividends (paid or accrued) are then included in finance costs in the statement of profit or loss and other comprehensive income.

The capital gearing ratio is a measure of the proportion of a company's capital that is debt. It is measured as follows:
**Formula to learn**

Gearing = \( \frac{\text{Interest bearing debt}}{\text{Shareholders’ equity} + \text{interest bearing debt}} \times 100\% \)

There is **no absolute limit** to what a gearing ratio ought to be. A company with a gearing ratio of more than 50 per cent is said to be high geared (whereas low gearing means a gearing ratio of less than 50 per cent). Many companies are high geared, but if a high geared company is becoming increasingly high geared, it is likely to have difficulty in the future when it wants to borrow even more, unless it can also boost its shareholders’ equity, either with retained profits or by a new share issue.

**Leverage** is an alternative term for gearing; the words have the same meaning.

Capital gearing measures gearing for the company as a whole. There are several variations in the way that the gearing ratio can be calculated.

**Formulae to learn**

Assets to equity ratio = \( \frac{\text{Shareholders’ equity} + \text{interest bearing debt}}{\text{Shareholders’ equity}} \times 100\% \)

Debt to total assets ratio = \( \frac{\text{Interest bearing debt}}{\text{Total assets}} \times 100\% \)

Remember that shareholders’ equity plus interest bearing debt is equal to non-current assets plus net current assets (ie the assets which are funded by way of either debt or shareholders’ funds). Therefore the assets to equity ratio could instead be stated as:

\( \frac{\text{Non-current assets + net current assets}}{\text{Shareholders’ equity}} \)

As we have already seen, this ratio (also known as the equity multiplier) measures gearing from the viewpoint of the equity investors. Gearing is one of the factors that influence the return they receive on their investment.

The debt to total assets ratio is used to measure the extent to which a company’s assets are financed by debt, rather than by equity. When companies make major asset purchases, for example to build or equip a new retail outlet, or to replace plant, they may need to raise finance specifically for this purpose. Capital expenditure may be financed by a share issue, or by taking out a long-term loan, or by a mixture of the two. Like return on assets (ROA), this ratio is most useful for a traditional type of business which uses non-current assets to generate revenue. Where a company has financed its operations with short term borrowings, including bank overdrafts, the ratio is sometimes calculated as:

\( \frac{\text{Total assets}}{\text{Total liabilities}} \)

Note that leverage (or gearing) can also be looked at conversely, by calculating the proportion of total assets financed by equity, and which may be called the equity to assets ratio. It is calculated as follows:

**Formula to learn**

Equity to assets ratio = \( \frac{\text{Shareholders’ equity}}{\text{Shareholders’ equity} + \text{interest bearing debt}} \times 100\% \)

or

\( \frac{\text{Shareholders’ equity}}{\text{Total assets less current liabilities}} \)
In the example of Furlong, we find that the company has a low gearing ratio. It has no preference share capital and its only long-term debt is the 10 per cent loan stock. The assets to equity and equity to assets ratios are therefore high, while the debt to total assets ratio is very low.

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gearing ratio</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td></td>
<td>1,009,899</td>
<td>768,769</td>
</tr>
<tr>
<td></td>
<td>= 10%</td>
<td>= 13%</td>
</tr>
<tr>
<td>Assets to equity</td>
<td>$1,009,899</td>
<td>$768,769</td>
</tr>
<tr>
<td></td>
<td>$909,899</td>
<td>$668,769</td>
</tr>
<tr>
<td></td>
<td>= 1.11 times</td>
<td>= 1.15 times</td>
</tr>
<tr>
<td>Debt to total assets</td>
<td>$1,870,630</td>
<td>$1,664,425</td>
</tr>
<tr>
<td></td>
<td>$180,000</td>
<td>$100,000</td>
</tr>
<tr>
<td></td>
<td>= 5%</td>
<td>= 6%</td>
</tr>
<tr>
<td>Equity to assets ratio</td>
<td>$909,899</td>
<td>$668,769</td>
</tr>
<tr>
<td></td>
<td>$1,009,899</td>
<td>$768,769</td>
</tr>
<tr>
<td></td>
<td>= 90%</td>
<td>= 87%</td>
</tr>
</tbody>
</table>

3.2 The implications of high or low gearing/leverage

We mentioned earlier that gearing or leverage is, among other things, an attempt to quantify the degree of risk involved in holding equity shares in a company, risk both in terms of the company’s ability to remain in business and in terms of expected ordinary dividends from the company. The problem with a highly geared company is that, by definition, there is a lot of debt. Debt generally carries a fixed rate of interest (or fixed rate of dividend if in the form of preference shares), hence there is a given (and large) amount to be paid out from profits to holders of debt before arriving at a residue available for distribution to the holders of equity. The riskiness will perhaps become clearer with the aid of an example.

<table>
<thead>
<tr>
<th></th>
<th>Company A</th>
<th>Company B</th>
<th>Company C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary shares</td>
<td>600</td>
<td>400</td>
<td>300</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Revaluation reserve</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>6% preference shares (redeemable)</td>
<td>-</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>10% loan stock</td>
<td>100</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Investment (capital employed)</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Gearing ratio</td>
<td>10%</td>
<td>30%</td>
<td>40%</td>
</tr>
<tr>
<td>Equity to assets ratio</td>
<td>90%</td>
<td>70%</td>
<td>60%</td>
</tr>
</tbody>
</table>

Now suppose that each company makes a profit before interest and tax of $50,000, and the rate of tax on company profits is 30 per cent. Amounts available for distribution to equity shareholders will be as follows.

<table>
<thead>
<tr>
<th></th>
<th>Company A</th>
<th>Company B</th>
<th>Company C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings before interest and tax</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Interest/preference dividend</td>
<td>10</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>Taxable profit</td>
<td>40</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Taxation at 30%</td>
<td>12</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Profit for the period</td>
<td>28</td>
<td>14</td>
<td>10</td>
</tr>
</tbody>
</table>
If in the subsequent year earnings before interest and tax falls to $40,000, the amounts available to ordinary shareholders will become as follows:

<table>
<thead>
<tr>
<th></th>
<th>Company A $'000</th>
<th>Company B $'000</th>
<th>Company C $'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings before interest and tax</td>
<td>40</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Interest/preference dividend</td>
<td>10</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>Taxable profit</td>
<td>30</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Taxation at 30%</td>
<td>9</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Profit for the period</td>
<td>21</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>

Note the following:

- Gearing ratio: 10%, 30%, 40%
- Equity to assets ratio: 90%, 70%, 60%
- Change in EBIT: -20%, -20%, -20%
- Change in profit available for ordinary shareholders: -25%, -50%, -70%

The more highly geared the company, the greater the risk that little (if any) profit/funds will be available to distribute by way of dividend to the ordinary shareholders. The example clearly displays this fact in so far as the more highly geared the company, the greater the percentage change in profit available for ordinary shareholders for any given percentage change in profit before interest and tax. The relationship similarly holds when profits increase, and if EBIT had risen by 20 per cent rather than fallen, you would find that once again the largest percentage change in profit available for ordinary shareholders (this means an increase) will be for the highly geared company. This means that there will be greater volatility of amounts available for ordinary shareholders, and presumably therefore greater volatility in dividends paid to those shareholders, where a company is highly geared. That is the risk: you may do extremely well or extremely badly without a particularly large movement in the EBIT of the company.

The risk of a company’s ability to remain in business was referred to earlier. Gearing or leverage is relevant to this. A highly geared company has a large amount of interest to pay annually (assuming that the debt is external borrowing rather than preference shares). If those borrowings are ’secured’ in any way (and loan notes in particular are secured), then the holders of the debt are perfectly entitled to force the company to realise assets to pay their interest if funds are not available from other sources. Clearly, the more highly geared a company the more likely this is to occur when and if profits fall.

### 3.3 Interest cover

The interest cover ratio shows whether a company is earning enough profits before interest and tax to pay its interest costs comfortably, or whether its interest costs are high in relation to the size of its profits, so that a fall in EBIT would then have a significant effect on profits available for ordinary shareholders.

**Formula to learn**

\[
\text{Interest cover} = \frac{\text{Earnings before interest and tax}}{\text{Interest charges}}
\]

An interest cover of 2 times or less would be low, and should really exceed 3 times before the company’s interest costs are to be considered within acceptable limits.
Returning first to the example of Companies A, B and C, the interest cover was as follows:

<table>
<thead>
<tr>
<th></th>
<th>Company A</th>
<th>Company B</th>
<th>Company C</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) When EBIT was $50 000 =</td>
<td>$50 000</td>
<td>$50 000</td>
<td>$50 000</td>
</tr>
<tr>
<td></td>
<td>$10 000</td>
<td>$30 000</td>
<td>$36 000</td>
</tr>
<tr>
<td></td>
<td>5 times</td>
<td>1.67 times</td>
<td>1.39 times</td>
</tr>
<tr>
<td>(b) When EBIT was $40 000 =</td>
<td>$40 000</td>
<td>$40 000</td>
<td>$40 000</td>
</tr>
<tr>
<td></td>
<td>$10 000</td>
<td>$30 000</td>
<td>$36 000</td>
</tr>
<tr>
<td></td>
<td>4 times</td>
<td>1.33 times</td>
<td>1.11 times</td>
</tr>
</tbody>
</table>

Both B and C have a low interest cover, which is a warning to ordinary shareholders that their profits are highly vulnerable, in percentage terms, to even small changes in EBIT.

**Question 1: Interest cover**

Returning to the example of Furlong, what is the company’s interest cover, and what does this reveal?  
(The answer is at the end of the chapter)

## 4 Liquidity and efficiency

### Section overview

- The current and quick ratios reveal a company’s ability to pay its debts as they fall due (its liquidity). Efficient management of working capital revealed by efficiency ratios will contribute to a healthy liquidity position.

Profitability is of course an important aspect of a company’s performance and gearing or leverage is another. Neither, however, addresses directly the key issue of **liquidity**.

### Definition

**Liquidity** is the availability of sufficient funds to meet deposit withdrawals and other short-term financial commitments as they fall due. Liquidity therefore involves the short term management of debt.

**Liquid funds** consist of:

1. Cash
2. Short-term investments for which there is a ready market
3. Fixed-term deposits with a bank or other financial institution, for example, a six month high-interest deposit with a bank
4. Trade receivables (because they will pay what they owe within a reasonably short period of time)
5. Bills of exchange receivable (because like ordinary trade receivables, these represent amounts of cash due to be received within a relatively short period of time)

In summary, **liquid assets are current asset items that will or could soon be converted into cash, and cash itself**. Two common definitions of liquid assets are:

- All current assets without exception
- All current assets with the exception of inventories

A company can obtain liquid assets from sources other than sales of goods and services, such as the issue of shares for cash, a new loan or the sale of non-current assets. But a company cannot rely on these at all times, and in general, obtaining liquid funds depends on making sales revenue and profits. Even so, profits do
not always lead to increases in liquidity. This is mainly because funds generated from trading may be immediately invested in non-current assets or paid out as dividends.

The reason why a company needs liquid assets is so that it can meet its debts when they fall due. Payments are continually made for operating expenses and other costs, and so there is a **cash cycle** from trading activities of cash coming in from sales and cash going out for expenses.

### 4.1 The cash cycle

To help you to understand liquidity ratios, it is useful to begin with a brief explanation of the cash cycle. The cash cycle describes the flow of cash out of a business and back into it again as a result of normal trading operations.

Cash goes out to pay for supplies, wages and salaries and other expenses, although payments can be delayed by taking some credit. A business might hold inventory for a while and then sell it. Cash will come back into the business from the sales, although customers might delay payment by themselves taking some credit.

The main points about the cash cycle are as follows:

(a) The timing of cash flows in and out of a business does not always coincide with the time when sales and costs of sales occur. **Cash flows out can be postponed by taking credit. Cash flows in can be delayed by having receivables.**

(b) The time between making a purchase and making a sale also affects cash flows. If inventories are held for a long time, the delay between the cash payment for inventory and cash receipts from selling it will also be a long one.

(c) **Holding inventories and having receivables can therefore be seen as two reasons why cash receipts are delayed.** Another way of saying this is that if a company invests in working capital, its cash position will show a corresponding decrease.

(d) Similarly, **taking credit from creditors can be seen as a reason why cash payments are delayed.** The company's liquidity position will worsen when it has to pay the suppliers, unless it can get more cash in from sales and receivables in the meantime.

The liquidity ratios and working capital turnover ratios are used to test a company’s liquidity, length of cash cycle, and investment in working capital.

### 4.2 Liquidity ratios: current ratio and quick ratio

The 'standard' test of liquidity is the **current ratio**. It can be obtained from the statement of financial position.

**Formula to learn**

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The idea behind this is that a company should have enough current assets that give a promise of 'cash to come' to meet its future commitments to pay off its current liabilities. Obviously, a ratio in excess of 1 should be expected. Otherwise, there would be the prospect that the company might be unable to pay its debts on time. In practice, a ratio comfortably in excess of 1 should be expected, but what is 'comfortable' varies between different types of businesses.

Companies are not able to convert all their current assets into cash very quickly. In particular, some manufacturing companies might hold large quantities of raw material inventories, which must be used in production to create finished goods inventory. These might be warehoused for a long time, or sold on lengthy credit. In such businesses, where inventory turnover is slow, most inventories are not very 'liquid' assets, because the cash cycle is so long. For these reasons, we calculate an additional liquidity ratio, known as the quick ratio or acid test ratio.
The quick ratio, or acid test ratio, is calculated as follows:

**Formula to learn**

\[
\text{Quick ratio} = \frac{\text{Current assets less inventory}}{\text{Current liabilities}}
\]

This ratio should ideally be at least 1 for companies with a slow inventory turnover. For companies with a fast inventory turnover, a quick ratio can be comfortably less than 1 without suggesting that the company could be in cash flow trouble.

Both the current ratio and the quick ratio offer an indication of the company’s liquidity position, but the absolute figures should not be interpreted too literally. It is often theorised that an acceptable current ratio is 1.5 and an acceptable quick ratio is 0.8, but these should only be used as a guide. Different businesses operate in very different ways. A supermarket group for example, might have a current ratio of 0.52 and a quick ratio of 0.17. Supermarkets have low receivables (people do not buy groceries on credit), low cash (good cash management), medium inventories (high inventories but quick turnover, particularly in view of perishability) and very high payables.

Compare this with a manufacturing and retail organisation, with a current ratio of 1.44 and a quick ratio of 1.03. Such businesses operate with liquidity ratios closer to the standard.

What is important is the trend of these ratios. From this, it is easy to ascertain whether liquidity is improving or deteriorating. If a supermarket has traded for the last 10 years (very successfully) with current ratios of 0.52 and quick ratios of 0.17 then it should be supposed that the company can continue in business with those levels of liquidity. If in the following year the current ratio were to fall to 0.38 and the quick ratio to 0.09, then further investigation into the liquidity situation would be appropriate. It is the relative position that is far more important than the absolute figures.

Don’t forget the opposing view of having insufficient liquidity. A current ratio and a quick ratio can get bigger than they need to be. A company that has large volumes of inventories and receivables might be over-investing in working capital, and so tying up more funds in the business than it needs to. This would suggest poor management of receivables (credit) or inventories by the company.

### 4.3 Efficiency ratios: control of receivables and inventories

An approximate measure of the average length of time it takes for a company’s customers to pay what they owe is the accounts receivable collection period (receivables’ days).

**Formula to learn**

The estimated average accounts receivable collection period is calculated as:

\[
\text{Trade receivables} \times \frac{\text{Sales}}{365 \text{ days}}
\]

The figure for sales should be taken as the sales revenue figure in the statement of profit or loss. Ideally any cash sales should be excluded – this ratio only uses credit sales – although in practice this may be impossible. The trade receivables are not the total figure for receivables in the statement of financial position, which includes prepayments and non-trade receivables. The trade receivables figure will be itemised in an analysis of the receivable total, in a note to the financial statements.

The estimate of the accounts receivable collection period is only approximate because:

(a) The value of receivables in the statement of financial position might be abnormally high or low compared with the 'normal' level the company usually has.

(b) Sales revenue in the statement of profit or loss is exclusive of sales taxes, but receivables in the statement of financial position are inclusive of sales tax. We are not strictly comparing like with like.
Sales are usually made on ‘normal credit terms’ of payment within 30 days. A collection period significantly in excess of this might be representative of poor management of funds of a business. However, some companies must allow generous credit terms to win customers. Exporting companies in particular may have to carry large amounts of receivables, and so their average collection period might be well in excess of 30 days.

The trend of the collection period over time is probably the best guide. If the collection period is increasing year on year, this is indicative of a poorly managed credit control function (and potentially therefore a poorly managed company).

### 4.4 Accounts receivable collection period: examples

Using various types of company as examples, the collection period for each of the companies is as follows.

<table>
<thead>
<tr>
<th>Company</th>
<th>Trade receivables</th>
<th>Collection period (× 365)</th>
<th>Previous year</th>
<th>Collection period (× 365)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>$5 016</td>
<td>6.4 days</td>
<td>$3 977</td>
<td>5.0 days</td>
</tr>
<tr>
<td></td>
<td>$284 986</td>
<td></td>
<td>$290 668</td>
<td></td>
</tr>
<tr>
<td>Manufacturer</td>
<td>$458.3m</td>
<td>81.2 days</td>
<td>$272.4m</td>
<td>78.0 days</td>
</tr>
<tr>
<td>Sugar refiner and seller</td>
<td>$2 059.5m</td>
<td></td>
<td>$1 274.2m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$304.4m</td>
<td>29.3 days</td>
<td>$287.0m</td>
<td>31.1 days</td>
</tr>
<tr>
<td></td>
<td>$3 817.3m</td>
<td></td>
<td>$3 366.3m</td>
<td></td>
</tr>
</tbody>
</table>

The differences in collection period reflect the differences between the types of business. Supermarkets have hardly any trade receivables at all, whereas the manufacturing companies have far more. The collection periods are fairly constant from the previous year for all three companies.

### 4.5 Inventory turnover

Another ratio worth calculating is the inventory turnover period (inventory days). This is another estimated figure, obtainable from published financial statements, which indicates the average number of days that items of inventory are held for. As with the average receivable collection period, however, it is only an approximate figure, but one which should be reliable enough for comparing changes year on year.

**Formula to learn**

\[
\text{Inventory turnover period} = \frac{\text{Inventory}}{\text{Cost of sales}} \times 365 \text{ days}
\]

Inventory turnover may also be calculated in terms of the number of times in a year that inventory is replaced in the business (or ‘turned over’). In this case the ratio is calculated as:

**Formula to learn**

\[
\text{Inventory turnover} = \frac{\text{Cost of sales}}{\text{Inventory}}
\]

An inventory turnover period of 5 days would correspond to inventory turnover of 73 times. In other words, inventory is sold and replaced every 5 days, or 73 times each year.

However inventory turnover is calculated, it is another measure of how vigorously a business is trading. A lengthening inventory turnover period (or reducing inventory turnover) from one year to the next indicates:

(a) A slowdown in trading; or

(b) A build-up in inventory levels, perhaps suggesting that the investment in inventories is becoming excessive.
Generally the **higher the inventory turnover the better**, i.e. the lower the turnover period the better, but several aspects of inventory holding policy have to be balanced:

(a) Lead times  
(b) Seasonal fluctuations in orders  
(c) Alternative uses of warehouse space  
(d) Bulk buying discounts  
(e) Likelihood of inventory perishing or becoming obsolete.

Presumably if we add together the inventory turnover period and receivables collection period, this should give us an indication of how soon inventory is converted into cash. Both receivables collection period and inventory turnover period therefore give us a further indication of the company’s liquidity.

### 4.6 Example: Inventory turnover period

The estimated inventory turnover periods for a supermarket are as follows:

<table>
<thead>
<tr>
<th>Company</th>
<th>Inventory Cost of sales</th>
<th>Inventory turnover period (× 365 days)</th>
<th>Previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supermarket</td>
<td>$15,554K × 365 = 22.3 days</td>
<td>$14,094K × 365 = 19.7 days</td>
<td></td>
</tr>
</tbody>
</table>

### 4.7 Accounts payable payment period

**Formula to learn**

Accounts payable payment period (payables’ days) is ideally calculated by the formula:

\[
\text{Accounts payable payment period} = \frac{\text{Trade accounts payable}}{\text{Purchases}} \times 365 \text{ days}
\]

It is rare to find purchases disclosed in published financial statements but they can be approximated as cost of sales plus increase (or minus decrease) in inventory.

For instance, we can calculate the 20X8 purchases of Furlong as $(2,402,609 - (86,550 - 64,422)) = $2,380,481

This would give an accounts payable payment period of \((627,018 / 2,380,481) \times 365 = 96 \text{ days}\).

The payables payment period often helps to assess a company’s liquidity; an increase is often a sign of lack of long-term finance or poor management of current assets, resulting in the use of extended credit from suppliers, increased bank overdraft and so on.

### Question 2: Liquidity and working capital

Calculate liquidity and working capital ratios from the financial statements of TEB Co, a business which provides service support (cleaning etc) to customers worldwide. Comment on the results of your calculations.

<table>
<thead>
<tr>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales revenue</td>
<td>$2,176.2</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>1,659.0</td>
</tr>
<tr>
<td>Gross profit</td>
<td>517.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current assets</th>
<th>20X7</th>
<th>20X6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventories</td>
<td>42.7</td>
<td>78.0</td>
</tr>
<tr>
<td>Receivables (note 1)</td>
<td>378.9</td>
<td>431.4</td>
</tr>
<tr>
<td>Short-term deposits and cash</td>
<td>205.2</td>
<td>145.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>626.8</strong></td>
<td><strong>654.4</strong></td>
</tr>
</tbody>
</table>
Current liabilities
Loans and overdrafts 32.4 81.1
Tax on profits 67.8 76.7
Accruals 11.7 17.2
Payables (note 2) 487.2 467.2
Net current assets 277 122

Notes
1 Trade receivables 295.2 335.5
2 Trade payables 190.8 188.1

(The answer is at the end of the chapter)

Question 3: Operating cycle
(a) Calculate the operating cycle for Moribund plc for 20X2 on the basis of the following information:

$ Inventory: raw materials 150 000
work in progress 60 000
finished goods 200 000
Purchases 500 000
Trade accounts receivable 230 000
Trade accounts payable 120 000
Sales 900 000
Cost of goods sold 750 000

Tutorial note. See Chapter 3 for a definition of the operating cycle. You will need to calculate inventory turnover periods (total year end inventory over cost of goods sold), receivables as daily sales, and payables in relation to purchases, all converted into 'days'.

(b) List the steps which might be taken in order to improve the operating cycle.

(The answer is at the end of the chapter)

5 Investor ratios

Section overview
- These are the ratios which help equity shareholders and other investors to assess the value and quality of an investment in the ordinary shares of a company.

Relevant ratios are:
(a) Earnings per share
(b) Dividend cover
(c) Price/Earnings (P/E) ratio
(d) Dividend yield.

The value of an investment in ordinary shares in a company listed on a stock exchange is its market value, and so investment ratios must have regard not only to information in the company’s published financial statements, but also to the current share price, and the third and fourth ratios involve using the share price.

5.1 Earnings per share

It is possible to calculate the return on each ordinary share in the year. This is the earnings per share (EPS). Earnings per share is the amount of net profit for the period that is attributable to each ordinary share which is outstanding during all or part of the period. The calculation can become very complex, but these more complicated aspects are outside the scope of the FAR syllabus. In its simplest form the calculation is:
Formula to learn

**Earnings per share** is a ratio of: \( \frac{\text{Profit attributable to ordinary shareholders}}{\text{Number of ordinary shares in issue}} \)

### 5.2 Dividend cover

**Formula to learn**

**Dividend cover** is a ratio of: \( \frac{\text{Earnings per share}}{\text{Dividend per (ordinary) share}} \)

This shows the proportion of profit for the year that is available for distribution to shareholders that has been paid (or proposed) and what proportion will be retained in the business to finance future growth. A dividend cover of 2 times would indicate that the company had paid 50 per cent of its distributable profits as dividends, and retained 50 per cent in the business to help to finance future operations. Retained profits are an important source of funds for most companies, and so the dividend cover can in some cases be quite high.

A significant change in the dividend cover from one year to the next would be worth looking at closely. For example, if a company's dividend cover were to fall sharply between one year and the next, it could be that its profits had fallen, but the directors wished to pay at least the same amount of dividends as in the previous year, so as to keep shareholder expectations satisfied.

### 5.3 Price/Earnings (P/E) ratio

**Formula to learn**

The **Price/Earnings (P/E) ratio** is the ratio of a company’s current share price to the earnings per share calculated as:

\[ \frac{\text{Current share price}}{\text{EPS}} \]

A high P/E ratio indicates strong shareholder confidence in the company and its future, e.g. in profit growth, and a lower P/E ratio indicates lower confidence.

The P/E ratio of one company can be compared with the P/E ratios of:

- Other companies in the same business sector
- Other companies generally

It is often used in stock exchange reporting where prices are readily available.

### 5.4 Dividend yield

Dividend yield is the return a shareholder is currently expecting on the shares of a company.

**Formula to learn**

\[ \text{Dividend yield} = \frac{\text{Dividend per share for the year}}{\text{Current market value of the share (ex-div)}} \times 100\% \]

(a) The dividend per share is taken as the dividend for the previous year.
(b) Ex-div means that the share price does not include the right to the most recent dividend.
Shareholders look for both dividend yield and capital growth. Dividend yield is therefore an important aspect of a share's performance.

**Question 4: Dividend yield**

In the year to 30 September 20X8, an advertising agency declares an interim ordinary dividend of 7.4c per share and a final ordinary dividend of 8.6c per share. Assuming an ex-div share price of 315 cents, what is the dividend yield?

(The answer is at the end of the chapter)

**6 Comprehensive question**

The following question is not of the style that you will see in the Financial Accounting and Reporting exam. It does, however, provide excellent practice in terms of calculating relevant ratios and thinking about what they mean.

**Question 5: Ratios**

The following information has been extracted from the recently published financial statements of DG.

<table>
<thead>
<tr>
<th>EXTRACTS FROM THE STATEMENTS OF PROFIT OR LOSS TO 30 APRIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X9</td>
</tr>
<tr>
<td>Sales</td>
</tr>
<tr>
<td>Cost of sales</td>
</tr>
<tr>
<td>Net profit before tax</td>
</tr>
<tr>
<td>This is after charging:</td>
</tr>
<tr>
<td>Depreciation</td>
</tr>
<tr>
<td>Loan note interest</td>
</tr>
<tr>
<td>Interest on bank overdraft</td>
</tr>
<tr>
<td>Audit fees</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATEMENTS OF FINANCIAL POSITION AS AT 30 APRIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X9</td>
</tr>
<tr>
<td>Assets</td>
</tr>
<tr>
<td>Non-current assets</td>
</tr>
<tr>
<td>Current assets</td>
</tr>
<tr>
<td>Inventory</td>
</tr>
<tr>
<td>Receivables</td>
</tr>
<tr>
<td>Cash</td>
</tr>
<tr>
<td>Total assets</td>
</tr>
<tr>
<td>Equity and liabilities</td>
</tr>
<tr>
<td>Equity</td>
</tr>
<tr>
<td>Ordinary share capital</td>
</tr>
<tr>
<td>Retained earnings</td>
</tr>
<tr>
<td>Non-current liabilities</td>
</tr>
<tr>
<td>10% loan stock</td>
</tr>
<tr>
<td>Current liabilities</td>
</tr>
<tr>
<td>Bank overdraft</td>
</tr>
<tr>
<td>Payables</td>
</tr>
<tr>
<td>Taxation</td>
</tr>
<tr>
<td>Total equity and liabilities</td>
</tr>
</tbody>
</table>
The following ratios are those calculated for DG, based on its published financial statements for the previous year, and also the latest industry average ratios:

<table>
<thead>
<tr>
<th>Ratio</th>
<th>DG 30 April 20X8</th>
<th>Industry average</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROI (investment = equity and debentures)</td>
<td>16.31%</td>
<td>18.50%</td>
</tr>
<tr>
<td>Profit/sales</td>
<td>3.90%</td>
<td>4.73%</td>
</tr>
<tr>
<td>Asset turnover</td>
<td>4.18</td>
<td>3.91</td>
</tr>
<tr>
<td>Current ratio</td>
<td>2.14</td>
<td>1.90</td>
</tr>
<tr>
<td>Quick ratio</td>
<td>1.52</td>
<td>1.27</td>
</tr>
<tr>
<td>Gross profit margin</td>
<td>30.00%</td>
<td>35.23%</td>
</tr>
<tr>
<td>Accounts receivable collection period</td>
<td>40 days</td>
<td>52 days</td>
</tr>
<tr>
<td>Accounts payable payment period</td>
<td>37 days</td>
<td>49 days</td>
</tr>
<tr>
<td>Inventory turnover (times)</td>
<td>13.90</td>
<td>18.30</td>
</tr>
<tr>
<td>Gearing</td>
<td>25.75%</td>
<td>32.71%</td>
</tr>
</tbody>
</table>

Required

(a) Calculate comparable ratios (to two decimal places where appropriate) for DG for the year ended 30 April 20X9. All calculations must be clearly shown.

(b) Write a report to the board of directors analysing the performance of DG, comparing the results against the previous year and against the industry average.

(The answer is at the end of the chapter)

7 Limitations of financial analysis

Section overview

- Financial statements are affected by the obvious shortcomings of historic cost information and are also subject to manipulation.

Financial analysis, be it simple horizontal analysis with another company, trend analysis over time or ratio analysis has a number of limitations. Many of these stem from limitations of the financial statements themselves.

7.1 Limitations of financial statements

Financial statements are intended to give a fair presentation of the financial performance of an entity over a period and its financial position at the end of that period. The IASB Conceptual Framework and the IFRSs are there to ensure as far as possible that they do. However, there are a number of reasons why the information in financial statements should not just be taken at its face value.

7.1.1 Problems of historical cost information

Historical cost information is reliable and can be verified, but it becomes less relevant as time goes by. The value shown for assets carried in the statement of financial position at historical cost may bear no relation whatever to what their current value is and what it may cost to replace them. The corresponding depreciation charge will also be low, leading to the overstatement of profits in real terms.

This is particularly misleading when attempting to predict future performance or compare results with those of a company with newer or revalued assets. In terms of predicting future performance, it could be that a major asset will need to be replaced in two years time, at vastly more than the original cost of the asset currently shown in the statement of financial position. This will then entail much higher depreciation and interest payments (if a loan or finance lease is used). In addition, overstatement of profit due to the low depreciation charge can lead to too much profit being distributed, increasing the likelihood of new asset purchases having to be financed by loans. This information could not have been obtained just from looking at the financial statements.
In a period of inflation, financial statements based on historic cost are subject to an additional distortion. Sales revenue will be keeping pace with inflation and so will the cost of purchases. However, using FIFO (and to some degree the weighted average method) inventory being used will be valued as the earliest (and therefore cheapest) purchases. This leads to understatement of cost of sales and overstatement of profits. This is the result of inventory carried at historic cost.

7.1.2 Creative accounting

Listed companies produce their financial statements while watching the stock market closely and, where possible, they like to produce financial statements which show analysts what they are expecting to see. For instance, a steady rise in profits, with no peaks or troughs, is reassuring to potential investors. Companies sometimes achieve this by delaying or advancing invoicing or manipulating cut-offs or accruals. Directors who are paid performance bonuses will favour the steady rise (enough to secure the bonus each year, rather than up one year, down the next) while those who hold share options may be aiming for one spectacular set of results just before they sell.

An important aspect of improving the appearance of the statement of financial position is keeping gearing as low as possible. Investors know that interest payments reduce the amount available for distribution and potential lenders will be less willing to lend to a company which is already highly geared.

A number of creative accounting measures are aimed at reducing gearing. Finance leases can be treated as operating leases, so that the asset and the loan are kept ‘off-balance sheet’ (not recognised in the statement of financial position). Assets can be ‘sold’ under a sale and leaseback agreement, which is in effect a disguised loan. And if all else fails, a last minute piece of ‘window dressing’ can be undertaken. For instance, a loan can be repaid just before the year end and taken out again at the beginning of the next year.

7.1.3 The effect of related parties

Relationships and transactions with related parties are a normal feature of business. It is common for entities to carry on activities with or through subsidiaries and associates, or occasionally to engage in transactions with directors or their families. The point is that such transactions cannot be assumed to have been engaged in ‘at arm’s length’ or in the best interests of the entity itself. Transfer pricing can be used to transfer profit from one company to another and inter-company loans and transfers of non-current assets can also be used in the same way.

IAS 24 Related party disclosures requires companies to disclose details of such transactions, but those which wish to disguise a related party relationship can probably still find complex ways to do it (the Enron scandal revealed the existence of numerous unfavourable related party transactions) and financial statements do not show the unseen effects of such a relationship. For instance, a subsidiary may not have been allowed to tender for a contract in competition with another group company. Its shareholders will never know about such missed opportunities.

7.1.4 Seasonal trading

This is another issue that can distort reported results. Many companies whose trade is seasonal position their year end after their busy period, to minimise time spent on the inventory count. At this point in time, the statement of financial position will show a healthy level of cash and/or receivables and a low level of trade payables, assuming most of them have been paid. Thus the position is reported at the moment when the company is at its most solvent. A statement of financial position drawn up a few months earlier or later, when trade is slack but fixed costs still have to be paid, may give a very different picture.

7.1.5 Asset acquisitions

Major asset acquisitions just before the end of an accounting period can also distort results. The statement of financial position will show an increased level of assets and corresponding liabilities (probably a loan or lease payable), but the income which will be earned from utilisation of the asset will not yet have materialised. This will adversely affect the company’s return on investment.
7.2 Accounting policies

Section overview

- The choice of an accounting policy and the effect of its implementation are almost as important as its disclosure. The accounting policies adopted can have a significant impact on the reported results of a company.

7.2.1 The effect of choice of accounting policies

A choice is found in a number of areas of accounting, for example the option to carry non-current assets at historic cost or revalued amount. The choice made may distort the results of ratio analysis. For example a company which revalues its assets will have higher net assets and therefore lower ROI than a company which does not. Such factors must be taken into account when performing comparative analysis of two companies.

Where accounting standards allow alternative treatment of items in the financial statements, then the accounting policy note should declare which policy has been chosen. Being aware of this disclosure helps to ensure that the results of any ratio analysis are meaningful.

7.3 Changes in accounting policy

The effect of a change of accounting policy is treated as a prior year adjustment according to IAS 8 (see Chapter 2). This just means that the comparative figures are adjusted for the change in accounting policy for comparative purposes and an adjustment is put through retained earnings.

Under consistency of presentation in IAS 1, any change in policy may only be made if it can be justified on the grounds that the new policy is preferable to the one it replaces because it will give a fairer presentation of the result and of the financial position of a reporting entity.

The problem with this situation is that the directors may be able to manipulate the results through change(s) of accounting policies. This would be done to avoid the effect of an old accounting policy or gain the effect of a new one. It is likely to be done in a sensitive period, perhaps when the company’s profits are low or the company is about to announce a rights issue. The management would have to convince the auditors that the new policy was much better, but it is not difficult to produce reasons in such cases.

The effect of such a change is very short-term. Most analysts and sophisticated users will discount its effect immediately, except to the extent that it will affect any dividend (because of the effect on distributable profits). It may also help to avoid breaches of banking covenants because of the effect on certain ratios.

Obviously, the accounting policy for any item in the financial statements could only be changed once in quite a long period of time. Auditors would not allow another change, even back to the old policy, unless there was a wholly exceptional reason.

The managers of a company can choose accounting policies initially to suit the company or the type of results they want to get. Any changes in accounting policy must be justified, but some managers might try to change accounting policies just to manipulate the results.

7.4 Limitations of ratio analysis

The consideration of how accounting policies may be used to manipulate company results leads us to some of the other limitations of ratio analysis.

The most important ones are:

- In a company’s first year of trading there will be no comparative figures. So there will be no indication of whether or not a ratio is improving.
- Comparison against industry averages may not be that revealing. A business may be subject to factors which are not common in the industry.
- Ratios based on historic cost accounts are subject to the distortions inherent in historic cost accounting. In particular, undervalued assets will distort ROI and exaggerate gearing.
- Ratios are influenced by the choice of accounting policy. For instance, a company seeking to maintain or increase its ROI may choose not to revalue its assets.
- Financial statements are subject to manipulation and so are the ratios based on them. Creative accounting is undertaken with key ratios in mind.
- Inflation over a period will distort results and ratios. Net profit, and therefore ROI, can be inflated where FIFO is applied during an inflationary period.
- No two companies, even operating in the same industry, will have the same financial and business risk profile. For instance, one may have better access to cheap borrowing than the other and so may be able to sustain a higher level of gearing.

7.5 Other issues

Are there other issues which should be looked at when assessing an entity's performance? Factors to consider are:

- How technologically advanced is it? If it is not using the latest equipment and processes it risks being pushed out of the market at some point or having to undertake a high level of capital expenditure.
- What are its environmental policies? Is it in danger of having to pay for cleanup if the law is tightened? Does it appeal to those seeking 'ethical investment'?
- What is the reputation of its management? If it has attracted good people and kept them, that is a positive indicator.
- What is its mission statement? To what degree does it appear to be fulfilling it?
- What is its reputation as an employer? Do people want to work for this company? What are its labour relations like?
- What is the size of its market? Does it trade in just one or two countries or worldwide?
- How strong is its competition? Is it in danger of takeover?

You can probably think of other factors that you would consider important. In some cases you can also look at the quality of the product that a company produces.
Key chapter points

- Financial analysis requires the financial statements and ratios of a company to be compared, for example with industry averages.
- Horizontal analysis involves comparing one company’s financial statements directly with those of another similar company and considering why differences may be evident.
- Trend analysis is an exercise analysing differences also, but this time involving a comparison of the financial statements of one company with those of the previous year.
- Ratio analysis is the practice of analysing amounts reported within the financial statements in order to calculate further values which may add to the findings of basic horizontal or trend analysis.
- Ratios can be grouped into four categories: profitability, solvency, liquidity/efficiency, and investor ratios.
- Profitability ratios include return on investment (ROI), return on assets (ROA), return on equity (ROE), profit margins and asset turnover.
- ROI, ROA and ROE show how well investment (capital employed) is used to generate profits and may be used by the shareholders or the Board to assess the performance of management.
- Solvency is the ability of a company to manage its debt burden in the long run.
- Solvency ratios include gearing, assets to equity, debt to total assets and interest cover.
- Liquidity ratios include the quick and current ratios (and represent short-term management of debt).
- Efficiency ratios include receivables’ days, inventory days and payables’ days.
- The current and quick ratios reveal a company’s ability to pay its debts as they fall due (its liquidity). Efficient management of working capital revealed by efficiency ratios will contribute to a healthy liquidity position.
- Investor ratios include earnings per share, dividend cover, price/earnings ratio and dividend yield.
- Financial statements and any analysis of them are affected by the obvious shortcomings of historic cost information and are also subject to manipulation.
- The accounting policies adopted can have a significant impact on the reported results and ratios of a company.
Quick revision questions

1. An entity wishes to increase its return on investment (ROI). Which of the following courses of action will help to achieve this in the short term?
   A. Increase sales
   B. Increase the level of dividends paid to equity shareholders
   C. Issue ordinary shares
   D. Revalue land and buildings

2. The following information relates to M at 31 December 20X3:

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade receivables</td>
<td>80</td>
</tr>
<tr>
<td>Current asset investments (cash on deposit)</td>
<td>10</td>
</tr>
<tr>
<td>Trade payables</td>
<td>75</td>
</tr>
<tr>
<td>Bank overdraft</td>
<td>100</td>
</tr>
</tbody>
</table>

   The entity has decided to take the following steps to reduce the overdraft.

   1. Inventory with a book value of $8 000 will be sold at a loss of $2 000.
   2. Customers will be offered a cash discount of 10% for immediate payment. Customers owing amounts with a total book value of $20 000 are expected to take advantage of this offer.

   In return, the entity’s bankers have agreed to make a loan of $40 000, which will be used immediately to purchase new machinery. The loan will be repayable in five equal instalments, the first of which falls due on 31 December 20X4.

   Assuming that all the above transactions take place on 31 December 20X3, what is the revised quick (acid test) ratio on that date?
   A. 0.39:1
   B. 0.44:1
   C. 0.46:1
   D. 0.51:1

3. Z has a current ratio of 1.5, a quick ratio of 0.4 and a positive cash balance. If it purchases inventory on credit, what is the effect on these ratios?

<table>
<thead>
<tr>
<th>Current ratio</th>
<th>Quick ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Increase</td>
</tr>
<tr>
<td>B</td>
<td>Increase</td>
</tr>
<tr>
<td>C</td>
<td>Decrease</td>
</tr>
<tr>
<td>D</td>
<td>Increase</td>
</tr>
</tbody>
</table>

4. KL has the following capital and reserves at 31 December 20X9:

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary shares</td>
<td>300</td>
</tr>
<tr>
<td>8% preferred shares</td>
<td>100</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>550</td>
</tr>
</tbody>
</table>

   KL also had $200 000 10% loan notes on issue throughout the year. Profit for the year was $20 000 after paying the preferred dividend and an ordinary dividend of $7 500.

   What was the return on equity for the year ended 31 December 20X9?
   A. 5.0%
   B. 6.1%
   C. 6.7%
   D. 9.2%
5 The accounting ratios of ABC are very similar to the average ratios for the industry in which it operates. ABC has an average operating profit margin of 24% and an average asset turnover of 0.9.

This entity is likely to be:

A a food retailer
B a manufacturer
C an architect
D an insurance broker

6 An entity has the following capital structure.

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordinary shares</td>
<td>100 000</td>
</tr>
<tr>
<td>10% Redeemable preferred shares</td>
<td>50 000</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>80 000</td>
</tr>
<tr>
<td>12% loan notes</td>
<td>100 000</td>
</tr>
<tr>
<td></td>
<td>230 000</td>
</tr>
<tr>
<td></td>
<td>330 000</td>
</tr>
</tbody>
</table>

What is the gearing ratio?

A 30.3%
B 43.5%
C 45.5%
D 83.3%

7 X's asset turnover is very low compared with that of its main competitor.

What could be the reason for this?

A X carries its non-current assets at historic cost, while its competitor carries them at current value.
B X embarked on a major programme of capital investment towards the end of the previous year.
C X has a smaller proportion of productive assets than its competitor.
D X has recruited a number of additional production staff during the year.

8 The following information relates to an entity.

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit sales for the year ended 31 December 20X6</td>
<td>5 600</td>
</tr>
<tr>
<td>Credit purchases for the year ended 31 December 20X6</td>
<td>4 500</td>
</tr>
<tr>
<td>Trade receivables at 31 December 20X6</td>
<td>690</td>
</tr>
<tr>
<td>Trade payables at 31 December 20X6</td>
<td>250</td>
</tr>
</tbody>
</table>

The entity's operating cycle has been calculated at 105 days.

How much inventory did the entity hold at 31 December 20X6 (to the nearest thousand dollars)?

A $493 000
B $614 000
C $986 000
D $1 227 000
Information from the statement of financial position of MNO has been expressed as percentages of total assets less current liabilities:

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land and property</td>
<td>78%</td>
</tr>
<tr>
<td>Other non-current assets</td>
<td>19%</td>
</tr>
<tr>
<td>Inventories and work in progress</td>
<td>–</td>
</tr>
<tr>
<td>Trade receivables</td>
<td>459%</td>
</tr>
<tr>
<td>Cash/short term investments</td>
<td>89%</td>
</tr>
<tr>
<td>Bank overdraft</td>
<td>(5%)</td>
</tr>
<tr>
<td>Trade payables</td>
<td>(540%)</td>
</tr>
<tr>
<td>Total assets less current liabilities</td>
<td>100%</td>
</tr>
</tbody>
</table>

In which of the following industries could MNO be operating?

A. House building  
B. Insurance broking  
C. Manufacturing  
D. Retailing

ST, UV and WX are listed entities operating in the same business sector. At 31 October 20X6, their P/E ratios were reported as follows:

- ST: 16.2
- UV: 12.7
- WX: 8.4

Which one of the following statements about these P/E ratios is correct?

The P/E ratios suggest that:

A. ST has the highest earnings per share of the three entities.  
B. ST is regarded by the market as the riskiest of the three entities.  
C. UV represents the safest investment because its P/E lies approximately midway between the other two.  
D. WX's share price may be relatively lower than that of ST and UV because of an adverse effect such as a profit warning.
Answers to quick revision questions

1 A An increase in sales will probably lead to an increase in earnings before interest and tax (sometimes called operating profit). There will be no increase in investment (net assets or capital employed).

Issuing ordinary shares (option B) increases net assets and decreases ROI in the short term, although the issue proceeds can be used to generate additional profit and this may help to increase ROI in the longer term. Revaluing land and buildings upwards (option C) decreases ROI, because it increases net assets and reduces profits. Increasing the level of dividends (option D) has no effect on ROI.

2 B Quick ratio: \[
\frac{70 \, 000}{159 \, 000} = 0.44:1
\]

Assets as stated (80 + 10) 90
Less customers taking advantage of discount (20) 70

Liabilities as stated (75 + 100) 175
Cash received from sale of inventory (8 – 2) (6)
Cash received from trade receivables (20 × 90%) (18)
Current portion of new loan (40 ÷ 5) 8

159

3 C Example: suppose the entity purchases inventory worth $300,000:

\[
\begin{array}{ccc}
\text{Current ratio} & \text{Quick ratio} \\
\text{Before} & 1.5 & 0.4 \\
& 1000 & 400 \\
\text{After} & 1.4 & 0.3 \\
& 1300 & 400 \\
\end{array}
\]

4 B \[
\frac{20 + 7.5}{300 + 150} = 6.1\%
\]

5 B ABC has a relatively high operating profit and a relatively low asset turnover. This suggests that it is capital intensive. C and D would not normally have high levels of non-current assets. A is more likely to have significant non-current assets, but this type of business normally has low operating profit share margins. Therefore, option B is the most likely option.

6 C \[
\frac{100 + 50}{330} = 45.5\%
\]

7 B A and C are both likely to result in increased sales revenue relative to investment (capital employed) and therefore in increased asset turnover. D is irrelevant.
8. C  Receivables collection period \( \frac{\text{Trade receivables}}{\text{Sales}} = \frac{690}{5600} \times 365 = 45 \text{ days} \)

Payables payment period \( \frac{\text{Trade payables}}{\text{Cost of sales}} = \frac{250}{4500} \times 365 = 20 \text{ days} \)

If the operating cycle is 105 days, inventories turnover must be 80 days \((105 + 20 - 45)\).

Inventories turnover is \( \frac{\text{Inventories}}{\text{Cost of sales}} \) so inventories are \( \frac{80}{365} \times 4500 = \$986,000 \)

9. B  MNO has no inventories, moderate levels of land and property, low levels of other non-current assets and very high trade receivables and trade payables. This suggests that MNO operates in a service industry. An insurance broker is the only one of the four that fits this profile.

10. D  The P/E ratio provides indication of market confidence in an entity, not risk therefore both A and C are incorrect. The ratio is calculated as price per share/earnings per share and therefore without the share price of each entity it is impossible to decide whether B is correct. D is correct as a low P/E may be due to a low share price.
1. Interest payments should be taken gross, from the note to the financial statements, and not net of interest receipts as shown in the statement of profit or loss.

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X7</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT</td>
<td>360 245</td>
<td>247 011</td>
</tr>
<tr>
<td>Interest payable</td>
<td>18 115</td>
<td>21 909</td>
</tr>
<tr>
<td></td>
<td>= 20 times</td>
<td>= 11 times</td>
</tr>
</tbody>
</table>

Furlong has more than sufficient interest cover. In view of the company's low gearing, this is not too surprising and so we finally obtain a picture of Furlong as a company that does not seem to have a debt problem, in spite of its high (although declining) debt ratio.

2. Current ratio: 626.8 / 599.1 = 1.05, 654.4 / 642.2 = 1.02
   Quick ratio: 584.1 / 599.1 = 0.97, 576.4 / 642.2 = 0.90
   Accounts receivable collection period: 295.2 / 2176.2 × 365 = 49.5 days, 335.5 / 2344.8 × 365 = 52.2 days
   Inventory turnover period: 42.7 / 1659.0 × 365 = 9.4 days, 78.0 / 1731.5 × 365 = 16.4 days
   Accounts payable payment period: 190.8 / 1659.0 × 365 = 42.0 days, 188.1 / 1731.5 × 365 = 40.0 days

The company's current ratio is a little lower than average but its quick ratio is better than average and slightly less than the current ratio. This suggests that inventory levels are strictly controlled, which is reinforced by the low inventory turnover period. It would seem that working capital is tightly managed, to avoid the poor liquidity which could be caused by a long receivables collection period and comparatively high payables.

The company in the exercise is a service company and hence it would be expected to have very low inventory and a very short inventory turnover period. The similarity of receivables collection period and payables payment period means that the company is passing on most of the delay in receiving payment to its suppliers.

3. (a) The operating cycle can be found as follows:

   Inventory turnover period: \( \frac{\text{Total closing inventory} \times 365}{\text{Cost of goods sold}} \)

   plus

   Accounts receivable collection period: \( \frac{\text{Closing trade receivables} \times 365}{\text{Sales}} \)

   less

   Accounts payable payment period: \( \frac{\text{Closing trade payables} \times 365}{\text{Purchases}} \)
Total closing inventory ($) 410 000
Cost of goods sold ($) 750 000
Inventory turnover period 199.5 days
Closing receivables ($) 230 000
Sales ($) 900 000
Receivables collection period 93.3 days
Closing payables ($) 120 000
Purchases ($) 500 000
Payables payment period (87.6 days)
Length of operating cycle (199.5 + 93.3 – 87.6) 205.2 days

(b) The steps that could be taken to reduce the operating cycle include the following:
(i) Reducing the raw material inventory turnover period.
(ii) Reducing the time taken to produce goods. However, the company must ensure that quality is not sacrificed as a result of speeding up the production process.
(iii) Increasing the period of credit taken from suppliers. The credit period already seems very long – the company is allowed three months’ credit by its suppliers, and probably could not be increased. If the credit period is extended then the company may lose discounts for prompt payment.
(iv) Reducing the finished goods inventory turnover period.
(v) Reducing the receivables collection period. The administrative costs of speeding up debt collection and the effect on sales of reducing the credit period allowed must be evaluated. However, the credit period does already seem very long by the standards of most industries. It may be that generous terms have been allowed to secure large contracts and little will be able to be done about this in the short term.

The total dividend per share is (7.4 + 8.6) = 16 cents
\[
\frac{16}{315} \times 100 = 5.1\%
\]

<table>
<thead>
<tr>
<th></th>
<th>20X8</th>
<th>20X9</th>
<th>Industry average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROI</strong></td>
<td>(\frac{320 + 60}{2330}) = 16.31%</td>
<td>(\frac{465 + 80}{2910}) = 18.73%</td>
<td>18.50%</td>
</tr>
<tr>
<td><strong>Profit/sales</strong></td>
<td>(\frac{320 + 60}{9750}) = 3.90%</td>
<td>(\frac{465 + 80}{11200}) = 4.87%</td>
<td>4.73%</td>
</tr>
<tr>
<td><strong>Asset turnover</strong></td>
<td>(\frac{9750}{2330}) = 4.18x</td>
<td>(\frac{11200}{2910}) = 3.85x</td>
<td>3.91x</td>
</tr>
<tr>
<td><strong>Current ratio</strong></td>
<td>(\frac{1690}{790}) = 2.14</td>
<td>(\frac{1950}{890}) = 2.19</td>
<td>1.90</td>
</tr>
<tr>
<td><strong>Quick ratio</strong></td>
<td>(\frac{1.080 + 120}{790}) = 1.52</td>
<td>(\frac{1.230 + 80}{890}) = 1.47</td>
<td>1.27</td>
</tr>
<tr>
<td><strong>Gross profit margin</strong></td>
<td>(\frac{9750 - 6825}{9750}) = 30.00%</td>
<td>(\frac{11200 - 8460}{11200}) = 24.46%</td>
<td>35.23%</td>
</tr>
<tr>
<td><strong>Accounts receivable collection period</strong></td>
<td>(\frac{1080}{9750} \times 365) = 40 days</td>
<td>(\frac{1230}{11200} \times 365) = 40 days</td>
<td>52 days</td>
</tr>
<tr>
<td><strong>Accounts payable payment period</strong></td>
<td>(\frac{690}{8625} \times 365) = 37 days</td>
<td>(\frac{750}{8610} \times 365) = 32 days</td>
<td>49 days</td>
</tr>
<tr>
<td><strong>Inventory turnover (times)</strong></td>
<td>(\frac{6825}{490}) = 13.9x</td>
<td>(\frac{8460}{640}) = 13.2x</td>
<td>18.30x</td>
</tr>
<tr>
<td><strong>Gearing</strong></td>
<td>(\frac{600}{2330}) = 25.75%</td>
<td>(\frac{800}{2910}) = 27.5%</td>
<td>32.71%</td>
</tr>
</tbody>
</table>
* For 20X9 purchases are calculated as \((8\,460 + (640 - 490))\). The 20X8 ratio uses cost of sales as we are unable to calculate the movement in inventory between 20X7 and 20X8.

(b) (i) REPORT

To: Board of Directors  
From: Accountant  
Date: xx/xx/xx  
Subject: Analysis of performance of DG

This report should be read in conjunction with the appendix attached which shows the relevant ratios (from part (a)).

Trading and profitability

Return on investment (return on capital employed) has improved considerably between 20X8 and 20X9 and is now higher than the industry average.

Net income as a proportion of sales has also improved noticeably between the years and is also now marginally ahead of the industry average. Gross margin, however, is considerably lower than in the previous year and is only some 70% of the industry average. This suggests either that there has been a change in the cost structure of DG or that there has been a change in the method of cost allocation between the periods. Either way, this is a marked change that requires investigation. The company may be in a period of transition as sales have increased by nearly 15% over the year and it would appear that new non-current assets have been purchased.

Asset turnover has declined between the periods although the 20X9 figure is in line with the industry average. This reduction might indicate that the efficiency with which assets are used has deteriorated or it might indicate that the assets acquired in 20X9 have not yet fully contributed to the business. A longer term trend would clarify the picture.

(ii) Liquidity and working capital management

The current ratio has improved slightly over the year and is marginally higher than the industry average. It is also in line with what is generally regarded as satisfactory (2:1).

The quick ratio has declined marginally but is still better than the industry average. This suggests that DG has no short term liquidity problems and should have no difficulty in paying its debts as they become due.

Receivables as a proportion of sales is unchanged from 20X8 and are considerably lower than the industry average. Consequently, there is probably little opportunity to reduce this further and there may be pressure in the future from customers to increase the period of credit given. The period of credit taken from suppliers has fallen from 37 days’ purchases to 32 days’ and is much lower than the industry average; thus, it may be possible to finance any additional receivables by negotiating better credit terms from suppliers.

Inventory turnover has fallen slightly and is much slower than the industry average and this may partly reflect stocking up ahead of a significant increase in sales. Alternatively, there is some danger that the inventory could contain certain obsolete items that may require writing off. The relative increase in the level of inventory has been financed by an increased overdraft which may reduce if the inventory levels can be brought down.

The high levels of inventory, overdraft and receivables compared to that of payables suggests a labour intensive company or one where considerable value is added to bought-in products.

(iii) Gearing

The level of gearing has increased only slightly over the year and is below the industry average. Since the return on investment is nearly twice the rate of interest on the loan stock, profitability is likely to be increased by a modest increase in the level of gearing.

Signed: Accountant
Revision questions
Chapter 1

1 Which of the following are true?

I The main purpose of financial reporting is to provide information aimed at running a business more efficiently.

II The principal function of financial statements is to provide information to parties external to a business.

III The term ‘reporting entity’ may be used to describe a group of companies.

A I and II only
B I and III only
C II and III only
D I, II and III

2 Which of the following groups of users of accounts is interested primarily in the liquidity of a company?

A Suppliers
B The government
C The management
D The tax authorities

3 Which of the following groups of users of accounts is interested primarily in the efficiency of a company?

A Customers
B Investors
C Lenders
D Management

4 The purpose of the IFRS Advisory Council is to

A monitor international adoption of International Accounting Standards
B organise the funding of the IASB
C police the application of International Accounting Standards
D represent users and preparers of accounts and so influence the IASB in their agenda decisions

5 Which of the following best describes GAAP?

A A term which signifies all of the rules governing accounting
B A term which signifies all of the rules governing accounting and auditing
C General accounting and auditing principles
D Generally accepted auditing practice
Chapter 2

1. Which of the following are stated by the IASB as purposes of the Conceptual Framework?

I to assist in the development of national accounting standards
II to assist auditors in forming an opinion as to whether financial statements comply with IFRS
III to help promote the harmonisation of accounting standards and regulations
A I and III only
B II and III only
C I, II and III
D None of the statements

2. Which one of the following should be recognised as an asset in the statement of financial position according to the definition of an asset and recognition criteria provided in the Conceptual Framework?

A A football player acquired for a transfer fee
B A photocopying machine leased for a three year term. The lease contract includes a clause which states that any repairs and maintenance of the machine will be carried out by the lessor, and the lessee may only copy 100,000 sheets per annum
C An amount spent on investigating the healing powers of an Amazonian plant
D An amount spent on training staff which is expected to result in increased productivity

3. Which of the following statements is/are true?

I In the case of a true and fair override the financial impact of the departure from IFRS should be disclosed
II Departure from an IFRS is allowed only where approved by the IASB
A I only
B II only
C I and II
D Neither I nor II

4. Which of the following statements is/are true?

I A change in accounting policy is always applied prospectively, so that the effect of the change is recognised in the current period
II An entity can only change an accounting policy if this is required by an accounting standard
A I only
B II only
C I and II
D Neither I nor II

5. Non-current assets should be measured at cost less depreciation rather than enforced sales value. The concept applied in this statement is

A comparability
B going concern
C relevance
D understandability
1 Where in a company’s financial statements are dividends paid found?
   A The statement of changes in equity
   B The statement of financial position
   C The statement of profit or loss and other comprehensive income
   D The statement of profit or loss and the statement of changes in equity

2 Classify the following amounts as current or non-current:
   I A receivable arising from a credit sale made to a customer with payment terms of 24 months
   II A bank overdraft expected to be in place for TWO years
   III Shares bought in another company for the purpose of resale in the near future

<table>
<thead>
<tr>
<th>Current</th>
<th>Non-current</th>
</tr>
</thead>
<tbody>
<tr>
<td>I and II</td>
<td>III</td>
</tr>
<tr>
<td>II</td>
<td>I and III</td>
</tr>
<tr>
<td>III</td>
<td>I and II</td>
</tr>
<tr>
<td>I, II and III</td>
<td>none</td>
</tr>
</tbody>
</table>

3 Which of the following are conditions that must be met in order to record revenue from the sale of goods?
   I The amount of revenue can be measured reliably
   II It is certain that the economic benefits associated with the transaction will flow to the entity
   III The costs incurred or to be incurred for the transaction can be measured reliably

   A I only
   B I and III only
   C II and III only
   D all of them

4 Details of two of Lord’s transactions in the month of May are as follows:
   I It has sold an item of machinery to a customer; the machinery has been delivered and Lord will undertake specialist installation in two months’ time.
   II It has sold goods to another customer on credit. The goods have not yet been delivered.

   For which transactions should revenue be recognised in May?
   A I only
   B II only
   C both I and II
   D neither I nor II

5 Which of the following must be shown in the main financial statements of a typical manufacturing company rather than in the notes to the financial statements?
   A A classification of expenses
   B The classes of property, plant and equipment
   C The classification of assets as current and non-current
   D The number of shares in issue
1. A statement of cash flows prepared in accordance with the indirect method reconciles profit before tax to cash generated from operations. Which of the following includes only items which should be added to profit before tax in the reconciliation?

A. Decrease in payables, depreciation charge and loss on disposal of non-current assets
B. Decrease in receivables, finance cost and profit on disposal of non-current assets
C. Depreciation charge, investment income and increase in inventories
D. Increase in payables, loss on disposal of non-current assets and finance cost

2. A company made a profit for the year of $12,990 after accounting for depreciation of $1,300. During the year, non-current assets were purchased for $6,500, receivables increased by $560, inventories decreased by $1,100 and payables increased by $230. The increase in cash and bank balances during the year was

A. $530
B. $4,420
C. $7,020
D. $8,560

3. A business had non-current assets with a carrying amount of $90,000 at the start of the financial year. During the year the business sold machinery that had cost $12,000 and been depreciated to a carrying amount of $3,400. The carrying amount of non-current assets at the end of the year was $91,500. How much cash has been used to purchase non-current assets?

A. $1,900
B. $4,900
C. $10,500
D. $13,500

4. A business’s bank balance increased by $960,000 during its last financial year. In this period, it:

- issued shares raising $1,400,000
- repaid a loan of $230,000
- purchased current asset investments of $800,000
- charged depreciation of $190,000

Working capital increased by $120,000.

The business’ profit for the year was

A. $280,000
B. $520,000
C. $660,000
D. $1,400,000

5. Extracts from a company’s statement of financial position showed balances as follows:

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share capital</td>
<td>94,000</td>
<td>77,000</td>
</tr>
</tbody>
</table>

During 20X9 debentures of $70,000 were issued, a dividend of $12,000 was received and interest of $4,000 was paid.

What is the net cash flow from financing activities?

A. $17,000 inflow
B. $87,000 inflow
C. $95,000 inflow
D. $99,000 inflow
Chapter 5

1 Which of the following costs may be included in the cost of an item of inventory?
   I The costs associated with strike action on the production line
   II The relevant proportion of administrative expenses incurred
   III Irrecoverable sales tax paid on raw materials
   IV The costs to transport raw materials to the production facility
   A II and IV only
   B III and IV only
   C IV only
   D I, II, III and IV

2 Am Co purchased a property for $320 000 at the start of 20X0. At the end of 20X6, it was decided to revalue the property to $600 000. The useful life of the asset at the start of 20X0 was estimated to be 40 years. What is the amount of the annual reserves transfer in respect of the asset?
   A $7 000
   B $9 647
   C $10 182
   D $18 182

3 Reed Co publishes books. At its 20X9 year end the following titles were in inventory:

<table>
<thead>
<tr>
<th>Title</th>
<th>Number</th>
<th>Cost</th>
<th>Selling price</th>
<th>Costs to sell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry Potter</td>
<td>2 300</td>
<td>3.00</td>
<td>12.00</td>
<td>1.50</td>
</tr>
<tr>
<td>Good Food 20X7</td>
<td>7 000</td>
<td>4.50</td>
<td>2.10</td>
<td>0.30</td>
</tr>
<tr>
<td>Pass Maths!</td>
<td>1 500</td>
<td>2.00</td>
<td>2.30</td>
<td>0.40</td>
</tr>
</tbody>
</table>

At what value should Reed Co report its inventory in its 20X9 accounts?
   A $22 350
   B $22 500
   C $24 600
   D $41 400

4 A non-current asset was purchased on the first day of an accounting period, 1 January 20X6 for $34 000 and depreciated by 20% per annum using the reducing balance method. On 30 June 20X8 the asset was sold, realising a loss on disposal of $2 100. What were the proceeds of sale?
   A $14 900
   B $17 484
   C $19 660
   D $21 684

5 Which of the following should be accounted for as an item of capital expenditure?
   A Professional fees associated with the purchase of land
   B Road tax for a company car provided to a salesman
   C The cost of repainting a building
   D The purchase of a machine by a company for resale
1 Which of the following are conditions which must be met in order to capitalise development costs according to IAS 38?

I Resources are available to complete the project.
II There is a contract to sell or written commitment to use the item under development.
III Completion of the asset is technically feasible.

A III only  
B I and II only  
C I and III only  
D I, II and III

2 Which of the following statements about intangible assets is true?

A An intangible asset may be revalued where a fair value can be established through use of an expert valuer.
B An intangible asset must be separable.
C Development costs may be capitalised if the criteria laid down in IAS 38 are met.
D Goodwill can never be revalued.

3 An entity purchases a specialised machine on 1 January 20X8 for $400 000 together with production rights to manufacture a patented component, purchased for $20 000. These production rights are worthless without the specialised machine, and equally the machine may not be used without the production rights.

Which of the following statements is true?

A $400 000 is capitalised as a tangible non-current asset and $20 000 as an intangible asset.
B $400 000 is capitalised as a tangible non-current asset and $20 000 is expensed in the period.
C $420 000 is capitalised as a tangible non-current asset.
D $420 000 is capitalised as an intangible asset.

4 An entity purchases the brand name of a product on 1 November 20X8 for $375 000. The management feel that the brand has an indefinite useful life and have therefore not charged any amortisation in the year ended 31 October 20X9.

Which of the following is true?

A Amortisation should be charged based on an assumed maximum useful life of 20 years.
B Amortisation should be charged based on an assumed maximum useful life of 50 years.
C There is no requirement to charge amortisation, however the brand must be tested for impairment each year and in addition, whenever there are indications of an impairment.
D There is no requirement to charge amortisation, however the brand must be tested for impairment when indications of an impairment arise.
The following is relevant to ABC Co in the year ended 31 December 20X9:

- $28 000 was spent investigating the properties of a new type of plastic.
- $340 000 was capitalised relating to the development of a new product which went into commercial production on 1 October 20X9. Sales of the product are expected to remain constant for the first four years of its production and then halve for a further two years.

What amounts should be recognised in the financial statements of ABC Co in the year ended 31 December 20X9?

<table>
<thead>
<tr>
<th>Statement of profit or loss and other comprehensive income</th>
<th>Statement of financial position</th>
</tr>
</thead>
<tbody>
<tr>
<td>A  $17 000</td>
<td>$351 000</td>
</tr>
<tr>
<td>B  $28 000</td>
<td>$340 000</td>
</tr>
<tr>
<td>C  $36 500</td>
<td>$331 500</td>
</tr>
<tr>
<td>D  $45 000</td>
<td>$323 000</td>
</tr>
</tbody>
</table>
1. At the current year end, Claxon Co has undertaken impairment tests on two machines. The following information is relevant:

<table>
<thead>
<tr>
<th></th>
<th>Machine 1</th>
<th>Machine 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$450 000</td>
<td>$250 000</td>
</tr>
<tr>
<td>Useful life</td>
<td>10 years</td>
<td>15 years</td>
</tr>
<tr>
<td>Age</td>
<td>4 years</td>
<td>3 years</td>
</tr>
<tr>
<td>Fair value</td>
<td>$300 000</td>
<td>$230 000</td>
</tr>
<tr>
<td>Costs of disposal</td>
<td>$15 000</td>
<td>$35 000</td>
</tr>
<tr>
<td>Value in use</td>
<td>$260 000</td>
<td>$198 000</td>
</tr>
</tbody>
</table>

At what carrying amount should machinery be recognised in the accounts of Claxon Co?

A. $455 000  
B. $468 000  
C. $470 000  
D. $498 000

2. Taunton Co owns a property which was revalued to $900 000 at the start of the current accounting year. At that time the property had a remaining useful life of 25 years. As a result of market conditions, an impairment test is carried out at the end of the year and the property is found to have a value in use of $860 000 and a fair value of $870 000. Costs of disposal would amount to 5% of fair value.

What impairment loss, if any, must be recorded in the year?

A. $nil  
B. $4 000  
C. $37 500  
D. $40 000

3. Which of the following statements is/are true?

I. An impairment loss relating to a CGU is allocated to goodwill in the first instance  
II. Corporate assets must always be allocated to individual CGUs  
III. An impairment loss relating to goodwill cannot be reversed  

A. III only  
B. I and II only  
C. I, II and III  
D. none of them

4. Anton Co has identified a cash generating unit made up of the following assets:

<table>
<thead>
<tr>
<th>Carrying amount $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property</td>
</tr>
<tr>
<td>Machinery</td>
</tr>
<tr>
<td>Goodwill</td>
</tr>
<tr>
<td>Receivables</td>
</tr>
<tr>
<td>Inventory</td>
</tr>
</tbody>
</table>

An impairment loss of $55 000 has been identified. What is the carrying amount of the machinery after this loss has been accounted for?

A. $39 000  
B. $42 727  
C. $43 333  
D. $44 000
Rawlin Co purchased a property a number of years ago at a cost of $200,000. On 1 January 20X8, when it had 20 years of its useful life remaining, the property was revalued to $600,000, with a revaluation surplus of $480,000 recognised as other comprehensive income. At 31 December 20X9, the value in use of the property is $535,000 and its fair value less costs of disposal is $532,000. What impairment loss must be recognised and where?

<table>
<thead>
<tr>
<th>Loss</th>
<th>Recognised in</th>
</tr>
</thead>
<tbody>
<tr>
<td>A $5,000</td>
<td>Profit or loss</td>
</tr>
<tr>
<td>B $5,000</td>
<td>Other comprehensive income</td>
</tr>
<tr>
<td>C $35,000</td>
<td>Other comprehensive income</td>
</tr>
<tr>
<td>D $65,000</td>
<td>Other comprehensive income</td>
</tr>
</tbody>
</table>
1. Ray Co reported the following amounts in its statement of financial position at 31 December 20X8:
   - Liability for company taxes $43,800
   - Liability for deferred tax $79,320

   The 20X8 tax liability was eventually settled at $42,120.

   At the 20X9 year end, there is a liability for current tax of $52,300 and the total liability for deferred tax is to decrease to $69,780.

   What is Ray Co’s tax charge for 20X9?
   A. $41,080  
   B. $44,440  
   C. $60,160  
   D. $63,520

2. The following information is relevant to Drive Co’s non-current assets at 31 October 20X8 and 20X9:

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$765,400</td>
<td>$697,600</td>
</tr>
<tr>
<td>Accumulated depreciation</td>
<td>$239,140</td>
<td>$202,300</td>
</tr>
<tr>
<td>Accumulated capital allowances</td>
<td>$347,800</td>
<td>$278,000</td>
</tr>
</tbody>
</table>

   Drive Co pays corporate income tax at a rate of 20%.

   What is Drive Co’s deferred tax liability at 31 October 20X9, and deferred tax charge for the year ended 31 October 20X9?

<table>
<thead>
<tr>
<th>Tax liability</th>
<th>Tax charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>15 140</td>
<td>15 140</td>
</tr>
<tr>
<td>21 732</td>
<td>6 592</td>
</tr>
<tr>
<td>21 732</td>
<td>21 732</td>
</tr>
<tr>
<td>108 660</td>
<td>32 960</td>
</tr>
</tbody>
</table>

3. Which of the following statements about IAS 12 is/are true?
   I. Deferred tax liabilities may be classified as current liabilities
   II. Deferred tax relating to the revaluation of a property is reported as other comprehensive income
   III. Tax losses are an example of a taxable temporary difference

   A. I and II only  
   B. I and III only  
   C. II only  
   D. II and III only
4  Wiley Co has made tax trading losses for two years, totalling $87,600. $23,000 of these were used to relieve other taxable income in accordance with tax law. At the 31 December 20X9 year end, Wiley Co signs a large contract with a new customer which indicates that it will return to profitability. Wiley Co’s tax rate is 20%. What is the deferred tax implication of the losses?

A  A deductible temporary difference of $64,600 arises and a deferred tax asset of $12,920 is recognised at 31 December 20X9

B  A taxable temporary difference of $64,600 arises and a deferred tax liability of $12,920 is recognised at 31 December 20X9

C  A taxable temporary difference of $87,600 arises and a deferred tax liability of $17,520 is recognised at 31 December 20X9

D  A deductible temporary difference of $87,600 arises and a deferred tax asset of $17,520 is recognised at 31 December 20X9

5  The trial balance of Vine Co at 31 December 20X8 shows a credit balance on the tax payable account of $450. The estimated current tax liability of $28,760 has not yet been accrued. What amounts are reported in the financial statements in respect of current tax for the year?

<table>
<thead>
<tr>
<th>Tax liability</th>
<th>Tax charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>A  28,310</td>
<td>28,310</td>
</tr>
<tr>
<td>B  28,760</td>
<td>28,310</td>
</tr>
<tr>
<td>C  28,760</td>
<td>29,210</td>
</tr>
<tr>
<td>D  29,210</td>
<td>29,210</td>
</tr>
</tbody>
</table>
1 Radley Co purchased raw materials on credit from a foreign supplier for 375,000 Goldings halfway through the year ended 31 December 20X9. Half of the goods were paid for on 30 November 20X9 and the remaining half on 31 January 20Y0.

Relevant exchange rates are as follows:
- 30 June 20X9: 4.3 G: $1
- 30 November 20X9: 4.6 G: $1
- 31 December 20X9: 4.5 G: $1
- 31 January 20Y0: 5 G: $1

What exchange difference is recognised in Radley Co’s profit or loss in the year ended 31 December 20X9?
A $2,844 loss  
B $2,844 gain  
C $4,782 loss  
D $4,782 gain

2 The abbreviated functional currency statement of financial position at 30 November 20X9 of Pedro Co, a subsidiary of Aus Co, bought at the start of the year is as follows:

<table>
<thead>
<tr>
<th>Euro</th>
<th>560,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets</td>
<td>560,000</td>
</tr>
<tr>
<td>Share capital</td>
<td>100,000</td>
</tr>
<tr>
<td>Retained earnings b/f</td>
<td>220,000</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>70,000</td>
</tr>
<tr>
<td>Liabilities</td>
<td>170,000</td>
</tr>
</tbody>
</table>

Pedro Co was incorporated on 1 January 20X5.

Relevant exchange rates are as follows:
- 30 November 20X9: $1: euro 0.8
- 1 December 20X8: $1: euro 0.75
- 1 January 20X5: $1: euro 0.95
- Average for y/e 30 November 20X9: $1: euro 0.77

To the nearest $000 what are the translated retained earnings (including exchange differences) of Pedro Co at 30 November 20X9?
A $354,000  
B $362,000  
C $366,000  
D $382,000

3 Flurry Co prepares its financial statements in its functional currency, the Durham, translating to dollars in order to report to its parent company.

The following information is relevant:

<table>
<thead>
<tr>
<th>Net assets (D)</th>
<th>Exchange rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January 20X9</td>
<td>650,000</td>
</tr>
<tr>
<td>31 December 20X9</td>
<td>780,000</td>
</tr>
<tr>
<td>4.3D/$</td>
<td>4D/$</td>
</tr>
</tbody>
</table>

The retained profits for the year were D115,000 and the average exchange rate was 4.2D/$.

What exchange difference arises on translation of the financial statements?
A $11,337 loss  
B $11,337 gain  
C $12,706 loss  
D $12,706 gain
4 Drayton Co purchased a new non-current asset on 1 January 20X9 costing HK$ 1 450 000, agreeing 18 months’ extended credit with the supplier.

The exchange rate on 1 January 20X9 was 6.75HK$:$1. At 31 December 20X9, the exchange rate had moved to 7.2HK$:$1.

How are the asset and payable presented in the statement of financial position at 31 December 20X9?

<table>
<thead>
<tr>
<th></th>
<th>Asset</th>
<th>Payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$201 389</td>
<td>$201 389</td>
</tr>
<tr>
<td>B</td>
<td>$201 389</td>
<td>$214 815</td>
</tr>
<tr>
<td>C</td>
<td>$214 815</td>
<td>$201 389</td>
</tr>
<tr>
<td>D</td>
<td>$214 815</td>
<td>$214 815</td>
</tr>
</tbody>
</table>

5 Which of the following statements is or are true?

I A revalued ‘foreign’ asset is translated at the exchange rate in force on the date of the revaluation

II The currency that mainly influences sales prices set by an entity is likely to be the functional currency

III Exchange differences are always reported in profit or loss

A I and II only
B I and III only
C II and III only
D I, II and III
1 Raleigh Co holds the following investments:

- 30% of the voting shares in Well Co. The remaining 70% are held by a third, unrelated, company, Slim Co, which refuses to communicate with Raleigh Co.
- 18% of the voting shares in Vic Co. One of Raleigh’s Directors also sits on the Board of Vic Co.

How should the investments be accounted for?

<table>
<thead>
<tr>
<th></th>
<th>Well Co</th>
<th>Vic Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Associate</td>
<td>Investment</td>
</tr>
<tr>
<td>B</td>
<td>Investment</td>
<td>Associate</td>
</tr>
<tr>
<td>C</td>
<td>Investment</td>
<td>Investment</td>
</tr>
<tr>
<td>D</td>
<td>Associate</td>
<td>Associate</td>
</tr>
</tbody>
</table>

2 Dry Co holds 20% of the voting shares in Wet Co and has agreed with the other shareholders that it will direct the operating activities of that company. Dry Co also holds 40% of the voting shares in Cloud Co, participating in the policy making process of that company, and 25% of the voting shares in Drizzle Co.

How should these investments be treated in the Dry Co group accounts?

<table>
<thead>
<tr>
<th></th>
<th>Wet Co</th>
<th>Cloud Co</th>
<th>Drizzle Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Consolidated</td>
<td>Consolidated</td>
<td>Held at cost</td>
</tr>
<tr>
<td>B</td>
<td>Equity accounted</td>
<td>Equity accounted</td>
<td>Held at cost</td>
</tr>
<tr>
<td>C</td>
<td>Consolidated</td>
<td>Equity accounted</td>
<td>Equity accounted</td>
</tr>
<tr>
<td>D</td>
<td>Equity accounted</td>
<td>Consolidated</td>
<td>Equity accounted</td>
</tr>
</tbody>
</table>

3 Which of the following conditions must be met in order for a parent to avoid presenting consolidated financial statements?

I The parent is itself a wholly-owned subsidiary or it is a partially-owned subsidiary of another entity and its other owners do not object to the parent not presenting consolidated financial statements.
II Its securities are not publicly traded and it is not in the process of issuing securities in public securities markets.
III The ultimate or intermediate parent publishes consolidated financial statements that comply with International Financial Reporting Standards.
IV All subsidiaries operate under severe long term restrictions.

<table>
<thead>
<tr>
<th></th>
<th>I, II and III only</th>
<th>I, III and IV only</th>
<th>II, III and IV only</th>
<th>I, II, III and IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 Which of the following statements about consolidated financial statements is correct?

A IAS 28 states that investments should be held in the investor’s individual accounts using the equity method.
B IFRS 10 allows subsidiaries to be excluded from consolidation if their activities are dissimilar from those of the parent.
C Where a subsidiary uses different accounting policies from its parent company, this must be disclosed in the group accounts.
D An investor cannot control another company if it does not have the ability to use its power over the investee to affect the amount of the investor’s returns.
Which of the following provides evidence of the existence of significant influence?

A. Material transactions between investor and investee
B. Power to govern the financial and operating policies of the entity
C. Agreement with other shareholders of the entity to vote on their behalf
D. Power to appoint or remove a majority of members of the board of directors
1. Train Co owns 80% of Car Co. Extracts from the companies’ statements of financial position are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Train Co</th>
<th>Car Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables</td>
<td>$91’000</td>
<td>$67’000</td>
</tr>
<tr>
<td>Cash</td>
<td>$23’000</td>
<td>–</td>
</tr>
<tr>
<td>Payables</td>
<td>$87’000</td>
<td>$53’000</td>
</tr>
<tr>
<td>Overdraft</td>
<td>–</td>
<td>$9’000</td>
</tr>
</tbody>
</table>

Included within the receivables of Car Co is $7’000 due from Train Co. Included within the payables of Train Co is $5’600 due to Car Co. The difference is due to cash in transit.

What are the consolidated receivables and cash balances?

A. $151’000  $23’000
B. $151’000  $24’400
C. $152’400  $23’000
D. $152’400  $24’400

2. West Co acquired 90% of the 100’000 shares in East Co on 1 January 20X7 for $480’000 when the reserves of that company amounted to $320’000. On that date the fair value of the non-controlling interest was valued at $45’000. Included in East Co’s statement of financial position was land with a book value of $60’000. The fair value was $30’000 higher than this. West Co group measures the non-controlling interest at fair value.

What goodwill arose on the acquisition of East Co?

A. $75’000
B. $102’000
C. $105’000
D. $135’000

3. North Co acquired 80% of South Co on 1 February 20X8 for consideration totalling $560’000. At this date the fair value of a 20% holding in South Co was $130’000, and the net assets of South Co were $620’000. In the year ended 31 January 20X9, South Co reported profits of $75’000. North Co group measures the non-controlling interest using the proportion of net assets method.

What is the non-controlling interest to be reported in the consolidated statement of financial position at 31 January 20X9?

A. $137’750
B. $139’000
C. $143’750
D. $145’000

4. Axis Co transferred an asset to its 75% subsidiary Yves Co on 31 October 20X9 for $25’000. The asset cost $32’000 on 1 November 20X7 and was depreciated monthly by Axis Co at 20% per annum on cost. Yves Co did not amend the original useful life on the transfer and continued to depreciate the asset over its remaining life. At 31 December 20X9, extracts from the two companies’ accounts were as follows:

<table>
<thead>
<tr>
<th></th>
<th>Axis Co $</th>
<th>Yves Co $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td>$165’000</td>
<td>$180’000</td>
</tr>
</tbody>
</table>

What is the consolidated figure for non-current assets?

A. $339’200
B. $339’522
C. $343’522
D. $345’000

Chapter 11
Try Co bought 80% of the ordinary shares in Ply Co when the retained earnings of that company were $400 000. Goodwill arising on acquisition amounted to $68 000, and 25% of this amount was written off in the year ended 31 October 20X7.

During the year ended 31 October 20X9, Try Co sold $50 000 goods to Ply Co, achieving a 20% mark up. At the year end, Ply Co retained half of these in inventory.

The two companies’ retained earnings at 31 October 20X9 were as follows:

- Try Co: $680 900
- Ply Co: $532 000

What are group retained earnings?

A. $553 300
B. $765 333
C. $782 333
D. $1 085 333
1. P Co acquired 80% of the ordinary share capital in S Co on 31 August 20X9. Extracts from the two companies' statements of profit or loss for the year ended 31 October 20X9 were as follows:

<table>
<thead>
<tr>
<th></th>
<th>P Co</th>
<th>S Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$2,900</td>
<td>$1,800</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>1,500</td>
<td>900</td>
</tr>
</tbody>
</table>

During the year, P Co made sales of $10,000 to S Co each month, realising a mark up of 25%. At the end of the year S Co had none of these goods in inventory.

What is the group gross profit for the year ended 31 October 20X9?

A. $1,546,000  
B. $1,550,000  
C. $1,625,000  
D. $2,300,000

2. Ed Co has owned 100% of the shares in Clem Co for five years. These were bought for $450,000 when the net assets of Clem Co were $415,000. In the year of acquisition, Clem Co was impaired by $5,000 due to a drop in profitability. Clem Co has again suffered a loss of profits in the year ended 31 December 20X9, and accordingly goodwill is to be impaired by 20% of book value.

Extracts from the two companies' statements of profit or loss are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Ed Co</th>
<th>Clem Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of sales</td>
<td>320,000</td>
<td>126,000</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>100,000</td>
<td>36,000</td>
</tr>
</tbody>
</table>

What are the amounts to be reported for group cost of sales and administrative expenses?

Cost of sales  
Administrative expenses

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>A</td>
<td>439,000</td>
</tr>
<tr>
<td>B</td>
<td>440,000</td>
</tr>
<tr>
<td>C</td>
<td>446,000</td>
</tr>
<tr>
<td>D</td>
<td>446,000</td>
</tr>
</tbody>
</table>

3. Black Co sold an item of machinery to Red Co, its subsidiary on 31 December 20X8 for $340,000. The machine had cost Black Co $400,000 and had a carrying amount of $320,000 on the date of the transfer, based on annual depreciation at 10% on the straight line basis. The remaining useful life of the asset remains unchanged. Companies in the Black Co Group depreciate any asset held on the last day of the accounting period for a full year. Depreciation is charged to cost of sales.

What adjustment is required to the Black Co cost of sales in respect of this transfer in the year ended 31 December 20X9?

A. A decrease of $22,500  
B. A decrease of $2,500  
C. An increase of $2,500  
D. An increase of $17,500
4 Green Co sold an item of plant to Brown Co, its subsidiary on 31 October 20X9 for $200 000. The machine had cost Green Co $300 000 and had a carrying amount of $220 000 on the date of the transfer, based on a useful life of 15 years on the straight line basis. The remaining useful life of the asset remains unchanged. Green Co depreciates assets on a monthly basis.

What adjustment is required to Green Co’s profit in respect of this transfer in the year ended 31 December 20X9?

A $18 182 to add back to profit
B $19 697 to add back to profit
C $20 303 to add back to profit
D $20 303 to deduct from profit

5 Which of the following statements about the consolidated statement of profit or loss are true?

I Dividend income in the parent company’s statement of profit or loss is never carried across to the consolidated statement of profit or loss.

II The non-controlling interest in profit is deducted from group profits in the consolidated statement of profit or loss to leave profit allocated to the owners of the parent company.

A I only
B II only
C Both of them
D Neither of them
1 Roulston Co holds a 75% investment in Hudson Co and a 35% investment in White Co. During the year ended 30 November 20X9, Roulston Co sold goods to Hudson Co for $400 000 and White Co sold goods to Roulston Co for $210 000. The companies’ revenue as reported in their individual financial statements was as follows:

<table>
<thead>
<tr>
<th></th>
<th>$'000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roulston Co</td>
<td>1 490</td>
</tr>
<tr>
<td>Hudson Co</td>
<td>430</td>
</tr>
<tr>
<td>White Co</td>
<td>1 200</td>
</tr>
</tbody>
</table>

What is the consolidated revenue figure?
A $1 383 500  
B $1 520 000  
C $2 510 000  
D $2 583 000

2 Dray Co holds a 90% investment in Ray Co and a 25% investment in Lay Co. Extracts from their statements of profit or loss are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Dray Co</th>
<th>Ray Co</th>
<th>Lay Co</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$136 500</td>
<td>$127 800</td>
<td>$67 000</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>86 500</td>
<td>73 400</td>
<td>24 000</td>
</tr>
</tbody>
</table>

During the year Dray Co sold $40 000 goods to Ray Co and $10 000 to Lay Co at a 25% mark up. In each case all of these goods remained in inventory at the year end.

What is the consolidated cost of sales figure?
A $109 900  
B $111 900  
C $127 900  
D $128 400

3 Blue Co has a number of subsidiaries as well as a 45% investment in Pink Co bought for $190 000 some years ago. Since acquisition, Pink Co has made $450 000 profits and suffered no impairment. During the year ended 31 October 20X9, Pink Co sold $30 000 goods to Blue Co at a 20% margin. Half of these goods remained in Blue Co’s warehouse at the year end.

What is the Investment in associate shown in the Blue Co Group statement of financial position at 31 October 20X9?
A $386 500  
B $389 500  
C $391 150  
D $392 500

4 Which of the following statements about equity accounting and associates is true?
A The tax charge relating to an associate must be separately disclosed in the consolidated statement of profit or loss.
B Any impairment of an associate is charged to administrative expenses in the consolidated statement of profit or loss.
C There is no requirement for an associate to be consolidated or equity accounted using the same accounting policies as those adopted by the group.
D Where an associate is loss making, the investor should discontinue including its share of losses when the investor’s share of losses of the associate equals or exceeds its interest in the associate.
Arm Co Group bought 16% of the voting shares in Leg Co on 1 January 20X9 for $160,000, and on the same date started trading with Leg Co such that 80% of Leg Co’s sales were made to Arm Co. In the year ended 31 December 20X9, Leg Co made $98,000 profits, 80% of these relating to sales to Arm Co. None of the goods purchased from Leg Co remained in the inventory of Arm Co at the year end.

How is the investment in Leg Co shown in Arm Co’s group statement of financial position at 31 December 20X9?

A  A trade investment of $160,000
B  An investment in associate of $156,080
C  An investment in associate of $175,680
D  An investment in associate of $179,600
Chapter 14

1. Which of the following ratios provide a measure of profitability?
   I. Gross profit margin
   II. Return on equity
   III. Interest cover
   IV. Dividend cover
   A. I and II only
   B. I and III only
   C. I, III and IV only
   D. I, II, III and IV

2. Booth Co has increased its return on investment (ROI) since last year. Assuming all other factors remain the same, which of the following is the best explanation for this?
   A. A higher asset turnover than last year
   B. A higher current ratio than last year
   C. A lower profit margin than last year
   D. Lower interest cover than last year

3. Which of the following will cause a company’s gearing ratio to increase?
   A. The payment of a dividend
   B. A decrease in rental expenses
   C. A decrease in the allowance for receivables
   D. The upward revaluation of a non-current asset

4. Allister Co reports the following amounts in its statement of financial position:

<table>
<thead>
<tr>
<th>Item</th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>$13,500</td>
<td>$14,200</td>
</tr>
<tr>
<td>Receivables</td>
<td>?</td>
<td>$12,840</td>
</tr>
<tr>
<td>Prepayments</td>
<td>$1,280</td>
<td>$1,880</td>
</tr>
<tr>
<td>Cash</td>
<td>$348</td>
<td>–</td>
</tr>
<tr>
<td>Payables</td>
<td>$10,760</td>
<td>$17,200</td>
</tr>
<tr>
<td>Overdraft</td>
<td>–</td>
<td>$1,200</td>
</tr>
<tr>
<td>Deferred tax</td>
<td>$3,700</td>
<td>$4,200</td>
</tr>
</tbody>
</table>

Assuming that Allister Co maintained its quick ratio at the same level in 20X9, what was the receivables figure in that year?
   A. $1,770
   B. $6,980
   C. $7,771
   D. $11,822
Extracts from Hunt Co’s financial statements in the year ended 31 December 20X9 were as follows:

<table>
<thead>
<tr>
<th>Statement of profit or loss</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross profit</td>
<td>3,216,400</td>
</tr>
<tr>
<td>Earnings before interest and tax</td>
<td>2,468,400</td>
</tr>
<tr>
<td>Profit before tax</td>
<td>2,094,400</td>
</tr>
<tr>
<td>Profit after tax</td>
<td>1,870,000</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>7.48c</td>
</tr>
</tbody>
</table>

Hunt Co made no issues of shares during the year.

What was the number of Hunt Co shares in issue throughout the year to the nearest million?

A  25 million  
B  28 million  
C  33 million  
D  43 million
Answers to revision questions
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C</td>
<td>The provision of information aimed at running a business more efficiently is an objective of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>management accounting rather than financial accounting. The aim of financial reporting is the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>provision of information to meet the needs of external users.</td>
</tr>
<tr>
<td>2</td>
<td>A</td>
<td>Suppliers’ interest in their customers’ accounts lies in the fact that they wish to be repaid in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a timely fashion. They are therefore interested primarily in the liquidity of a company.</td>
</tr>
<tr>
<td>3</td>
<td>D</td>
<td>Management is interested in running a company efficiently. Investors are primarily interested</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in profitability, the share price and dividend amounts, customers in continued supply and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>lenders in being repaid.</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>The IFRS Advisory Council is made up of around 40 members and puts forward the views of its</td>
</tr>
<tr>
<td></td>
<td></td>
<td>members on current standard-setting projects.</td>
</tr>
<tr>
<td>5</td>
<td>A</td>
<td>The term GAAP does not refer to auditing. (GAAP refers to Generally Accepted Accounting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principles, see section 5)</td>
</tr>
</tbody>
</table>
Chapter 2

1 C These are three of a number of objectives of the Conceptual Framework. The remainder are listed in section 2.2 of Chapter 2.

2 A The amount spent on investigating the healing powers of the plant is research rather than development. At this stage it does not meet the recognition criteria as commercial development and economic benefit is too distant.

   The training costs do not meet the definition of an asset as the resultant benefit is not controlled by the company (i.e. the trained staff could leave the organisation).

   The machine is not controlled by the lessee. It does not therefore meet the definition of an asset.

3 A Departure from an IFRS is allowed where compliance would be misleading. Prior agreement with a regulatory body is not required.

4 D A change in accounting policy is applied retrospectively (as required by IAS 8), unless (a) it is impracticable to do so or (b) the change is required by a new IFRS and the transitional provisions require/allow prospective application.

   A change in accounting policy may be made voluntarily, if the change will result in a more relevant or reliable presentation in the financial statements.

5 B If a business is a going concern then an enforced sale is not required. Instead the asset is measured on the basis of ongoing use.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>Dividends must not be reported in the statement of profit or loss and other comprehensive income as they are not an expense and therefore do not relate to the performance of an entity in a reporting period. Dividend payments are reported in the statement of changes in equity because they represent a transaction between the business and the equity owners in their capacity as owners.</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>The credit sale is part of the company's normal operating cycle and so the receivable arising is classified as current. The bank overdraft is repayable on demand and so classified as current. The shares are a current asset investment.</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>IAS 18 states that the economic benefit must be <strong>probable</strong>, not certain. If Condition II applied, then revenue would not be recognised unless cash (or some other consideration) had actually been received.</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>Revenue is not recognised on I until the installation is complete. It is not recognised on II until delivery.</td>
</tr>
<tr>
<td>5</td>
<td>C</td>
<td>IAS 1 specifies what should be disclosed in the main financial statements.</td>
</tr>
</tbody>
</table>
1. A loss on disposal and depreciation are non-cash expenses and so must be added back in the reconciliation (a profit on disposal is non-cash income which must be deducted).

An increase in payables (or decrease in receivables or inventory) is added back in the reconciliation (a decrease in payables or increase in receivables or inventory is deducted).

Finance cost is added back to profit before tax in the reconciliation (investment income is deducted).

2. D

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit for the year</td>
<td>$12,990</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$1,300</td>
</tr>
<tr>
<td>Purchase of NCAs</td>
<td>$(6,500)</td>
</tr>
<tr>
<td>Increase in receivables</td>
<td>$(560)</td>
</tr>
<tr>
<td>Decrease in inventories</td>
<td>$1,100</td>
</tr>
<tr>
<td>Increase in payables</td>
<td>$230</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$8,560</strong></td>
</tr>
</tbody>
</table>

3. B

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying amount b/f</td>
<td>$90,000</td>
</tr>
<tr>
<td>Disposals at carrying amount</td>
<td>$(3,400)</td>
</tr>
<tr>
<td>Purchase of non-current assets (balancing figure)</td>
<td>$4,900</td>
</tr>
<tr>
<td>Carrying amount c/f</td>
<td>$91,500</td>
</tr>
</tbody>
</table>

4. B

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit (β)</td>
<td>$520,000</td>
</tr>
<tr>
<td>Increase in working capital</td>
<td>$(120,000)</td>
</tr>
<tr>
<td>Depreciation</td>
<td>$190,000</td>
</tr>
<tr>
<td>Current asset investment</td>
<td>$(800,000)</td>
</tr>
<tr>
<td>Loan</td>
<td>$(230,000)</td>
</tr>
<tr>
<td>Share issue</td>
<td>$1,400</td>
</tr>
<tr>
<td>Increase in cash</td>
<td>$960,000</td>
</tr>
</tbody>
</table>

5. B

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue of shares</td>
<td>$17,000</td>
</tr>
<tr>
<td>Issue of debentures</td>
<td>$70,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$87,000</strong></td>
</tr>
</tbody>
</table>

Dividends received is a cash flow from investing activities.

Interest paid is a cash flow from operating activities.
1 B The cost of inventory includes all costs in bringing the inventory to its current location and condition. However, this does not include abnormal costs and IAS 2 prohibits the inclusion of any portion of administrative overheads.

2 C The reserves transfer is the difference in the depreciation charge between that based on historic cost and that based on revalued amount:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>'New' depreciation charge ($600 000/33yrs)</td>
<td>18 182</td>
</tr>
<tr>
<td>'Old' depreciation charge ($320 000/40yrs)</td>
<td>8 000</td>
</tr>
<tr>
<td>Excess depreciation</td>
<td>10 182</td>
</tr>
</tbody>
</table>

3 A Inventory is measured on a line by line basis at the lower of cost and NRV. Therefore:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry Potter (2 300 × $3)</td>
<td>6 900</td>
</tr>
<tr>
<td>Good Food 20X7 (7 000 × $2.10 − 0.30)</td>
<td>12 600</td>
</tr>
<tr>
<td>Pass Maths! (1 500 × $2.30 − 0.40)</td>
<td>2 850</td>
</tr>
<tr>
<td>Total</td>
<td>22 350</td>
</tr>
</tbody>
</table>

4 B

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase price</td>
<td>34 000</td>
</tr>
<tr>
<td>Depreciation y/e 31 Dec 20X6</td>
<td>(6 800)</td>
</tr>
<tr>
<td>Depreciation y/e 31 Dec 20X7</td>
<td>(5 440)</td>
</tr>
<tr>
<td>Depreciation to 30 June 20X8</td>
<td>(2 176)</td>
</tr>
<tr>
<td>Carrying amount at disposal</td>
<td>19 584</td>
</tr>
<tr>
<td>Loss on disposal</td>
<td>(2 100)</td>
</tr>
<tr>
<td>Proceeds</td>
<td>17 484</td>
</tr>
</tbody>
</table>

5 A IAS 16 allows the inclusion of professional fees as part of the cost of a non-current asset. Both repainting and road tax are items of revenue expenditure, and a machine for resale is classified as inventory.
Chapter 6

1. C The entity developing the item must be able to sell or use the asset but no formal written commitment to do so is required.

2. D An intangible asset need not be separable; it must be identifiable.

   Development costs **must** be capitalised if the criteria laid down in IAS 38 are met.

   An intangible asset can only be revalued where a fair value is established by reference to an active market.

3. A Although the production rights are not separable (i.e. capable of separate disposal), they are contractual and therefore meet the IAS 38 definition of identifiable. The rights must therefore be recognised as an intangible asset in their own right.

4. C IAS 38 does not require an intangible asset to be amortised where it is assessed to have an indefinite life. In this case the asset must be tested for impairment annually and whenever there are indications of impairment.

5. D The research costs should be written off to profit or loss.

   Amortisation on the capitalised development costs commences on 1 October, and mirrors the expected sales pattern:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>68 000</td>
</tr>
<tr>
<td>2</td>
<td>68 000</td>
</tr>
<tr>
<td>3</td>
<td>68 000</td>
</tr>
<tr>
<td>4</td>
<td>68 000</td>
</tr>
<tr>
<td>5</td>
<td>34 000</td>
</tr>
<tr>
<td>6</td>
<td>34 000</td>
</tr>
</tbody>
</table>

   Therefore the total charge to profit or loss is:

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research costs</td>
<td>28 000</td>
</tr>
<tr>
<td>Amortisation (3/12 × 68 000)</td>
<td>17 000</td>
</tr>
<tr>
<td></td>
<td><strong>45 000</strong></td>
</tr>
</tbody>
</table>

   The development costs reported as an asset are therefore $340 000 − $17 000 = $323 000.
1 B

<table>
<thead>
<tr>
<th>Machine 1</th>
<th>Machine 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$450 000</td>
</tr>
<tr>
<td>Depreciation (4/10 &amp; 3/15)</td>
<td>(180 000)</td>
</tr>
<tr>
<td>Carrying amount</td>
<td>270 000</td>
</tr>
<tr>
<td>FV less costs of disposal</td>
<td>285 000</td>
</tr>
<tr>
<td>Value in use</td>
<td>260 000</td>
</tr>
<tr>
<td>Therefore recoverable amount</td>
<td>285 000</td>
</tr>
<tr>
<td>Revised carrying amount</td>
<td>270 000</td>
</tr>
<tr>
<td>Total</td>
<td>270 000 + 198 000 = $468 000</td>
</tr>
</tbody>
</table>

2 B

<table>
<thead>
<tr>
<th>Carrying amount (900 000 × 24/25)</th>
<th>$864 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value in use</td>
<td>$860 000</td>
</tr>
<tr>
<td>Fair value less costs of disposal (870 000 × 95%)</td>
<td>$826 500</td>
</tr>
<tr>
<td>Recoverable amount</td>
<td>$860 000</td>
</tr>
<tr>
<td>Impairment loss</td>
<td>$4 000</td>
</tr>
</tbody>
</table>

3 A An impairment loss relating to a CGU is initially allocated to any obviously impaired assets. Corporate assets may be allocated to groups of CGUs where allocation to a single CGU cannot be achieved on a reasonable and consistent basis. An impairment loss recognised for goodwill shall not be reversed in a subsequent period.

4 D The impairment is allocated first to the goodwill. The remaining $30 000 is split between the property and machinery on a pro rata basis. Therefore, the machinery is measured at $50 000 – ($30 000 × 50/250) = $44 000. Note that IAS 36 does not apply to inventories or to financial assets within the scope of IAS 39; these would include receivables.

5 B Carrying amount of property at 31 December 20X9

<table>
<thead>
<tr>
<th>$600 000 × 18/20 years</th>
<th>$540 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recoverable amount</td>
<td>535 000</td>
</tr>
<tr>
<td>Impairment loss</td>
<td>5 000</td>
</tr>
</tbody>
</table>

As the property has previously been revalued the impairment is charged against the revaluation surplus and reported as other comprehensive income.
1 A

Current tax (20X9) $52,300
Over-provision (43,800 – 42,120) (1,680)
Deferred tax (79,320 – 69,780) (9,540)

$41,080

2 B

<table>
<thead>
<tr>
<th></th>
<th>20X9</th>
<th>20X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying amount</td>
<td>526,260</td>
<td>495,300</td>
</tr>
<tr>
<td>Tax written down value</td>
<td>417,600</td>
<td>419,600</td>
</tr>
<tr>
<td>Temporary difference</td>
<td>108,660</td>
<td>75,700</td>
</tr>
<tr>
<td>× 20%</td>
<td>21,732</td>
<td>15,140</td>
</tr>
</tbody>
</table>

Increase in liability = charge to tax $21,732 – $15,140 = $6,592

3 C Deferred tax amounts may not be classified as current.

Tax losses are an example of a deductible temporary difference.

4 A A deferred tax asset arises in respect of losses carried forward which can be utilised against future profits.

5 B The credit balance on the tax account represents the previous year’s overprovision. This is deducted from the current year tax charge.

The current year liability is not adjusted for the over-provision.
Chapter 9

1 D

<table>
<thead>
<tr>
<th>Settled payable</th>
<th>Outstanding payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Recorded in June (375 000/2)/4.3</td>
<td>43 605</td>
</tr>
<tr>
<td>Settled (375 000/2)/4.6</td>
<td>40 761</td>
</tr>
<tr>
<td>Unsettled (375 000/2)/4.5</td>
<td>41 667</td>
</tr>
<tr>
<td>Exchange gain</td>
<td>2 844</td>
</tr>
<tr>
<td>Total gain</td>
<td>4 782</td>
</tr>
</tbody>
</table>

2 A

$'000

| Assets (560/0.8) | 700 |
| Share capital (100/0.75) | 133 |
| Retained earnings (β) | 354 |
| Liabilities (170/0.8) | 213 |
| Total | 700 |

3 D

$ |

| Opening net assets at 4.3D/$ | 151 163 |
| Opening net assets at 4D/$ | 162 500 |
| Gain | 11 337 |
| Retained profits at 4.2D/$ | 27 381 |
| Retained profits at 4D/$ | 28 750 |
| Gain | 1 369 |
| Total gain | 12 706 |

4 C

The asset is a non-monetary asset and should not be re-translated at the year end; the payable is a monetary amount and must be retranslated.

5 A

Exchange differences arising on settlement of currency items or the retranslation of monetary items are reported in profit or loss. Exchange differences arising on the translation of financial statements into the presentation currency are reported as other comprehensive income.
1. B  Raleigh Co cannot have significant influence over Well Co, since Slim Co already has control and refuses to listen to Raleigh Co.

   Vic Co is an associate by virtue of the fact that Raleigh Co has representation on Vic Co’s board of directors.

2. C  Dry Co controls Wet Co by virtue of the fact that it directs the relevant activities (operating activities) of that company.

   Dry Co has significant influence over Cloud Co, evidenced by the 40 per cent shareholding and participation in the policy-making process.

   Dry Co has significant influence over Drizzle Co, evidenced by the 25 per cent shareholding.

3. A  IFRS 10 requires that I, II, and III are all met in order to avoid presenting consolidated financial statements. IV is irrelevant as where subsidiaries operate under long term restrictions, control may have been lost. In this case, they are no longer subsidiaries and so consolidated accounts are not required, as there is no group.

4. D  IFRS 10 states that all material subsidiaries should be consolidated; investments in group companies in individual entity accounts are held at cost or in accordance with IAS 39; the accounting policies of the subsidiary must be brought in line with those of the group for the purposes of consolidation.

5. A  Both B and D refer to control.
Chapter 11

1 A
Car Co's accounts should be adjusted as though the cash has been received. Therefore, the revised balances are:

Receivables $60 000
Overdraft $7 600

2 A
Consideration $'000
Fair value of NCI 45
Fair value of net assets (100 + 320 + 30) (450)

3 B
20% × (620 000 + 75 000)

4 B
$ Axis Co 165 000
Yves Co 180 000
NCA PURP adjustment (see below) (5 478)

Unrealised profit on sale
$25 000 – ($32 000 × 20% × 3) 5 800
Reduction in depreciation
($32 000 × 20% × 2/12) – ($25 000/3yrs × 2/12) (322)

Alternatively, the adjustment can be calculated by comparing the carrying amount of the asset at the reporting date with the carrying amount had no transfer occurred:

Non-current asset post-transfer $25 000 – ($25 000 × 2/36 months) 23 611
Non-current asset if no transfer had occurred $32 000 – ($32 000 × 20% × 2 2/12yrs) 18 133
NCA PURP 5 478

5 B
$ Try Co 680 900
Ply Co 80% (532 000 – 400 000) 105 600
Goodwill impairment 25% × 68 000 (17 000)
URP 20/120 × $50 000 × ½ (4 167)

765 333
1 B

<table>
<thead>
<tr>
<th></th>
<th>PCo</th>
<th>SCo × 2/12</th>
<th>Adj</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$2,900</td>
<td>$300</td>
<td>($20)</td>
<td>3,180</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>1,500</td>
<td>150</td>
<td>($20)</td>
<td>1,630</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,550</td>
</tr>
</tbody>
</table>

2 D

An impairment is charged to admin expenses: $'000

Ed Co 100
Clem Co 36
Impairment (450,000 – 415,000 – 5,000) × 20% 6

3 B 20X9 is not the year of transfer and therefore the URP is made up only of the difference in depreciation charge:

'Old' depreciation $400,000 × 10% $40,000
'New' depreciation $340,000/8 yrs $42,500

Therefore, an extra $2,500 has been charged and must be adjusted for to reduce cost of sales.

4 B 20X9 is the year of transfer and therefore the URP is made up of the loss on transfer and the difference in depreciation charge:

Proceeds 200,000
Carrying amount at transfer (220,000)
Loss on transfer 20,000 to add back to profit

Depreciation:

'old' $300,000/15 × 2/12 3,333
'new' $200,000/11 × 2/12 3,030

303 extra to charge to profit

Therefore, the overall adjustment is $19,697 to add back to profit

5 B Dividend income relating to investments other than subsidiaries (and associates) is carried across to the consolidated statement of profit or loss.

Statement II is correct.
1  B  

The associate's revenue is irrelevant to the calculation: $'000  
Roulston Co  1 490  
Hudson Co  430  
Roulston sales to Hudson  (400)  
  1 520

2  C  

\[
\begin{array}{ll}
\text{Dray Co} & 86 500 \\
\text{Ray Co} & 73 400 \\
\text{Sales from D to R} & (40 000) \\
\text{URP on sales from D to R (}40 000 \times 25/125) & 8 000 \\
\hline
\text{Total} & 127 900 \\
\end{array}
\]

The URP on the sale to Lay Co is adjusted against the share of profit of associate.

3  C  

The group share of the URP is adjusted against the investment in the associate:

\[
\begin{array}{ll}
\text{Cost} & 190 000 \\
\text{Share of post-acquisition profits} & 202 500 \\
(450 000 \times 45\%) & \\
\text{URP (}15 000 \times 20\% \times 45\%) & (1 350) \\
\hline
\text{Total} & 391 150 \\
\end{array}
\]

4  D  

Any impairment of an associate is charged against the profits of the associate.

5  C  

This is a parent associate relationship; significant influence is evidenced by the material transactions between the two companies.

\[
\begin{array}{ll}
\text{Cost of investment} & 160 000 \\
\text{Group share of post-acquisition profits} & 15 680 \\
16\% \times 98 000 & \\
\hline
\text{Total} & 175 680 \\
\end{array}
\]

There is no unrealised profit, because all the goods have been sold.
1 A Interest cover is an indicator of solvency; dividend cover is an investor ratio.

2 A ROI is the product of profit margin and asset turnover. An increase in either of these will increase ROI. Interest cover and the current ratio are irrelevant to ROI.

3 A A decrease in expenses increases profits and so equity and decreases the gearing ratio.
     A decrease in the allowance for receivables also increases equity.
     An upward revaluation increases equity and so decreases the gearing ratio.
     The payment of a dividend decreases equity and so increases the gearing ratio.

4 B The quick ratio of 20X8 was:

\[
\frac{12840 + 1880}{17200 + 1200} = 0.8
\]

Therefore in 20X9:

\[
\frac{? + 1280 + 348}{10760} = 0.8
\]

\[
? + 1628 = 0.8 \times 10760
\]

\[
? + 1628 = 8608
\]

Receivables = 6980

5 A Earnings per share is calculated as the profits attributable to the ordinary shareholders divided by the number of shares. The profits attributable to ordinary shareholders is profit after tax and therefore:

\[
\frac{1870000}{\text{No of shares}} = 0.0748
\]

No of shares = \[
\frac{1870000}{0.0748} = 25m
\]
Before you begin questions:

Answers and commentary
Chapter 1

1 Financial reporting is the process of recording, analysing and summarising financial data.

2 A reporting entity is defined in Australia as 'an entity in respect of which it is reasonable to expect the existence of users who rely on the entity’s general purpose financial statements for information that will be useful to them for making and evaluating decisions about the allocation of resources. A reporting entity can be a single entity or a group comprising a parent and all of its subsidiaries.' The 'reporting entity' concept is not, however, one that is currently adopted outside of Australia and at present international standard-setters have no official equivalent definition. Internationally therefore, a reporting entity is taken quite simply to be an entity, or group of entities which prepare accounts.

3 Knowledge of the main user groups of financial statements is important for any accountant: According to the Conceptual Framework, the primary users of financial statements are:

(a) Shareholders and investors, who want to know how profitable their investment is.
(b) Lenders, who wish to know whether they will be repaid.
(c) Suppliers, who want to know whether they will be paid and whether business will continue into the future.

Other users may include:

(a) Management, who need financial information in order to run the company and make decisions.
(b) Customers, who want to know whether they will have a continued supply.
(c) Employees, who are interested in job security and whether they will be paid.
(d) The tax authorities, who are interested in profits for the purpose of calculating tax.
(e) The government, which is interested in companies’ financial position from the perspective of the economy and national statistics.
(f) The public, which is interested in how companies affect the environment in which they operate.

4 You should be familiar with the four international regulatory bodies and the objectives of each of them:

- IFRS Foundation – International Financial Reporting Standards Foundation
- IASB – International Accounting Standards Board
- IFRS Interpretations Committee – International Financial Reporting Standards Interpretations Committee

5 The IFRS Foundation oversees the IASB and organises its funding.

The IASB is responsible for the development of International Financial Reporting Standards and also promotes their use.

The IFRS Advisory Council represents worldwide preparers and users of financial accounting standards and assists the IASB in setting standards.

The IFRS Interpretations Committee deals with new and emerging issues not covered by a standard and also where conflict has arisen in the interpretation of a standard.
Generally Accepted Accounting Principles, or GAAP, is a term which has sprung up in recent years and signifies all the rules, from whatever source, which govern accounting. The rules may derive from:

- Local (national) company legislation
- National and international accounting standards
- Statutory requirements in other countries (particularly the US)
- Stock exchange requirements
1. A conceptual framework is a statement of generally accepted theoretical principles which form the frame of reference for financial reporting.

2. A knowledge of the Conceptual Framework and its contents is important for all accountants, as it underpins accounting standards.

   The chapters of the Conceptual Framework are:
   - The objective of general purpose financial reporting
   - Qualitative characteristics of useful financial information
   - Underlying assumption
   - The elements of financial statements
   - Recognition of the elements of financial statements
   - Measurement of the elements of financial statements
   - Concepts of capital and capital maintenance

3. The introduction to the Conceptual Framework gives a list of its purposes:
   (a) Assist the IASB in the development of future IFRSs and in its review of existing IFRSs.
   (b) Assist the IASB in promoting harmonisation of regulations, accounting standards and procedures relating to the presentation of financial statements by providing a basis for reducing the number of alternative accounting treatments permitted by IFRSs.
   (c) Assist national standard-setting bodies in developing national standards.
   (d) Assist preparers of financial statements in applying IFRSs and in dealing with topics that have yet to form the subject of an IFRS.
   (e) Assist auditors in forming an opinion as to whether financial statements conform with IFRSs.
   (f) Assist users of financial statements in interpreting the information contained in financial statements prepared in compliance with IFRSs.
   (g) Provide those who are interested in the work of IASB with information about its approach to the formulation of IFRSs.

4. The qualitative characteristics of financial information are important; make sure that you know what they are and understand what they mean:
   - The fundamental qualitative characteristics are: relevance and faithful representation
   - The enhancing qualitative characteristics are: comparability, verifiability, timeliness and understandability

5. Going concern.

6. Assets, liabilities, equity, income and expenses.

7. An asset is defined as a resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity.

8. The recognition criteria of the Conceptual Framework are repeated in a number of accounting standards. It is therefore important to familiarise yourself with them:

   An element of the financial statements is recognised when:
   (a) It is probable that any future economic benefit associated with the item will flow to or from the entity; and
   (b) The item has a cost or value that can be measured with reliability.
9 The following measurement bases may be used in financial statements:
   - Historic cost
   - Current cost
   - Realisable value
   - Present value of future cash flows

10 Accounting policies are the specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements.

11 A change in accounting policy is accounted for retrospectively i.e. the accounts are adjusted to reflect the situation as if the new accounting policy had always been in force.

12 A change in accounting estimate is accounted for prospectively i.e. the accounts are amended from the date of change.
Chapter 3

1. IAS 1 requires:
   - Statement of financial position
   - Statement of profit or loss and other comprehensive income
   - Statement of changes in equity
   - Statement of cash flows
   - Notes to the financial statements

2. An asset should be classified as a current asset when it:
   - is expected to be realised in, or is held for sale or consumption in, the normal course of the entity’s operating cycle; or
   - is held primarily for trading purposes or for the short-term and expected to be realised within 12 months of the end of the reporting period; or
   - is cash or a cash equivalent asset which is not restricted in its use.

3. A liability should be classified as a current liability when it:
   - is expected to be settled in the normal course of the entity’s operating cycle; or
   - is held primarily for the purpose of trading; or
   - is due to be settled within twelve months after the reporting period; or
   - the entity does not have an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

4. Total comprehensive income is the change in equity during a period resulting from transactions and other events, other than those changes resulting from transactions with owners in their capacity as owners. It comprises all components of profit or loss and of other comprehensive income.

5. Other comprehensive income refers to items which are not recognised in profit or loss, as they are not realised e.g. a revaluation gain on a non-current asset.

6. IAS 1 allows the presentation of total comprehensive income either in a single statement of profit or loss and other comprehensive income or in a separate statement of profit or loss and statement showing other comprehensive income.

7. IAS 1 requires the following items to be disclosed in the profit or loss section of the statement of profit or loss and other comprehensive income:
   (a) Revenue
   (b) Finance costs
   (c) Share of profits and losses of associates and joint ventures accounted for using the equity method
   (d) A single amount for the total of discontinued operations
   (e) Tax expense

8. To report transactions between a company and its shareholders in their capacity as shareholders.

9. IAS 18 Revenue

10. At the fair value of consideration received.
11 Revenue from the sale of goods should only be recognised when all these conditions are satisfied.

(a) The entity has transferred the significant risks and rewards of ownership of the goods to the buyer.

(b) The entity has no continuing managerial involvement to the degree usually associated with ownership, and no longer has effective control over the goods sold.

(c) The amount of revenue can be measured reliably.

(d) It is probable that the economic benefits associated with the transaction will flow to the entity.

(e) The costs incurred in respect of the transaction can be measured reliably.

12 When the outcome of a transaction involving the rendering of services can be estimated reliably, the associated revenue should be recognised by reference to the stage of completion of the transaction at the end of the reporting period. The outcome of a transaction can be estimated reliably when all these conditions are satisfied.

(a) The amount of revenue can be measured reliably.

(b) It is probable that the economic benefits associated with the transaction will flow to the entity.

(c) The stage of completion of the transaction at the end of the reporting period can be measured reliably.

(d) The costs incurred for the transaction and the costs to complete the transaction can be measured reliably.
Chapter 4

1 A statement of cash flows shows a company’s ability to pay its debts as they fall due, and the availability of cash to pay dividends, wages and so on. It is a useful indicator of liquidity and solvency.

2 Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

3 Cash flows from operating, investing and financing activities.

4 Cash generated by operations:
   Cash received from customers $X
   Cash paid to employees and suppliers (X)$

5 Cash generated by operations:
   Earnings before interest and tax $X
   Add depreciation $X
   Loss (profit) on sale of non-current assets $X
   (Increase)/decrease in inventories (X)/X
   (Increase)/decrease in receivables (X)/X
   Increase/(decrease) in payables X/(X)
   Cash generated from operations $X

6 The advantages of cash flow accounting are as follows:
   (a) Survival in business depends on the ability to generate cash. Cash flow accounting directs attention towards this critical issue.
   (b) Cash flow is more comprehensive than ‘profit’ which is dependent on accounting conventions and concepts.
   (c) Creditors (long- and short-term) are more interested in an entity’s ability to repay them than in its profitability. Whereas ‘profits’ might indicate that cash is likely to be available, cash flow accounting is more direct with its message.
   (d) Cash flow reporting provides a better means of comparing the results of different companies than traditional profit reporting.
   (e) Cash flow reporting better satisfies the needs of all users.
      (i) For management, it provides the sort of information on which decisions should be taken: (in management accounting, ‘relevant costs’ to a decision are future cash flows); traditional profit accounting does not help with decision-making.
      (ii) For shareholders and auditors, cash flow accounting can provide a satisfactory basis for stewardship accounting.
      (iii) As described previously, the information needs of creditors and employees will be better served by cash flow accounting.
   (f) Cash flow forecasts are easier to prepare, as well as more useful, than profit forecasts.
   (g) They can in some respects be audited more easily than accounts based on the accruals concept.
   (h) The accruals concept is confusing, and cash flows are more easily understood.
   (i) Cash flow accounting should be both retrospective, and also include a forecast for the future. This is of great information value to all users of accounting information.
(j) Forecasts can subsequently be monitored by the publication of variance statements which compare actual cash flows against the forecast.
1 At the lower of cost and net realisable value. This rule is fundamental and you must make sure that you know and can apply it.

2 The cost of inventory includes:
   (a) Purchase price including import duties
   (b) Conversion costs
   (c) Any other costs in bringing the inventory to its present location and condition

3 The cost of interchangeable items may be allocated using the methods of FIFO or average cost.

4 At cost less depreciation and accumulated impairment losses if the cost model is applied or valuation less depreciation and accumulated impairment losses where the revaluation model is applied.

5 Only when the recognition criteria are met, i.e:
   (a) It is probable that future economic benefits associated with the expenditure will flow to the entity, and
   (b) The expenditure can be measured reliably.
   These criteria mirror those seen in the Conceptual Framework. You should therefore be very familiar with them.

6 Borrowing costs directly relating to a qualifying asset (an asset which takes an extended period to prepare for normal use) should be capitalised during the period that:
   (a) Expenditure is being incurred on the asset
   (b) Borrowing costs are being incurred
   (c) The asset is under development to be ready for normal use
   The capitalisation of such costs must cease when the asset is ready for normal use.

7 Depreciation spreads the cost of an asset over the period in which it is expected to benefit an entity, so matching its cost to the revenues which it helps to generate.
   This is an application of the accruals concept with which you should be very familiar.

8 Useful life and residual value should be reviewed at least at the end of each accounting period. Where either (or both) has changed, the change should be accounted for prospectively i.e. the change is applied from the date of change, but previous amounts are not restated.

9 Where the revaluation model is adopted:
   (a) It must be applied to all assets in the same class
   (b) Revaluations must be kept sufficiently up to date to reflect fair value

10 A revaluation surplus is reported as other comprehensive income in the statement of profit or loss and other comprehensive income and accumulated in equity within the revaluation reserve.

11 The revaluation surplus is realised upon disposal and is cleared out to retained earnings:

   DEBIT Revaluation surplus
   CREDIT Retained earnings
1. An intangible asset is a non-monetary asset without physical substance.

2. At cost, providing that the recognition criteria are met, i.e.:
   
   (a) It is probable that the future economic benefits that are attributable to the asset will flow to the entity.
   
   (b) The cost can be measured reliably.

3. An intangible asset may only be revalued if it is part of an active market. An active market is one in which items traded are homogenous, willing buyers and sellers are available and prices are available to the public.

4. Internally generated goodwill, brands, mastheads, publishing titles and customer lists may not be capitalised as intangible assets.

5. Research is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.

6. Development is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.

7. Research costs are expensed to profit or loss as incurred.

8. If all of the following six criteria are met, development costs must be capitalised:
   
   • The completion of the intangible asset so that it will be available for use or sale is technically feasible.
   
   • There is an intention to complete the intangible asset and use or sell it.
   
   • The intangible asset can be used or sold.
   
   • The intangible asset will generate probable future economic benefits. Among other things, the entity should demonstrate the existence of a market for the output of the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset.
   
   • Adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available.
   
   • The expenditure attributable to the intangible asset during its development can be measured reliably.

These criteria are important and worth learning. Note how they mirror (in more detail) the recognition criteria of the Conceptual Framework.
Chapter 7

1 Indicators of impairment may be external or internal. They are largely based on common sense:
   (a) **External sources of information**
       (i) A fall in the asset’s market value that is more significant than would normally be expected from passage of time over normal use.
       (ii) A significant change in the technological, market, legal or economic environment of the business in which the assets are employed.
       (iii) An increase in market interest rates or market rates of return on investments likely to affect the discount rate used in calculating value in use.
       (iv) The carrying amount of the entity’s net assets being more than its market capitalisation.
   (b) **Internal sources of information**: evidence of obsolescence or physical damage, adverse changes in the use to which the asset is put, or the asset’s economic performance.

2 Even if there are no indications of impairment, the following assets must **always** be tested for impairment annually:
   (a) An intangible asset with an indefinite useful life
   (b) Goodwill acquired in a business combination

3 The recoverable amount of an asset should be measured as the higher value of:
   (a) The asset’s fair value less costs of disposal; and
   (b) Its value in use.

   **Learn this definition as it will be the key to correctly answering many questions.**

4 An impairment loss must be recognised when the recoverable amount of an asset is less than its carrying amount.

5 An impairment loss relating to an asset held at historical cost is recognised in profit or loss; an impairment loss relating to a revalued asset is recognised as a revaluation decrease in accordance with the relevant standard.

6 A cash-generating unit is the smallest identifiable group of assets for which independent cash inflows can be identified and measured.

7 Impairment losses are allocated to a CGU in the following order:
   (a) First, to any assets that are obviously damaged or destroyed
   (b) Next, to the goodwill allocated to the cash generating unit
   (c) Then to all other assets in the cash-generating unit, on a pro rata basis.
Current tax is the estimated amount payable to the tax authorities in relation to the trading activities of the entity during the period. It is calculated by applying the tax rate to taxable profits.

2. The correct double entry is:
   - DEBIT Tax expense (profit or loss)
   - CREDIT Tax liability (statement of financial position)

3. An over-provision of current tax arises where the liability recorded at one year end exceeds the amount of tax actually paid in the next period. An over-provision reduces the following year’s tax charged to profits.

   **An under-provision is the opposite and increases the following year’s tax charged to profits.**

4. Deferred tax is an accounting measure used to match the tax effects of transactions with their accounting impact.

5. A temporary difference is the difference between the carrying amount of an asset or liability and its tax base.

6. The tax base of an asset is the amount that will be deductible for tax purposes against any taxable economic benefits that will flow to the entity when it recovers the carrying amount of the asset. Where those economic benefits are not taxable, the tax base of the asset is the same as its carrying amount.

7. A taxable temporary difference arises where the carrying amount of an asset exceeds its tax base or the carrying amount of a liability is less than its tax base. It results in a deferred tax liability.

8. Common transactions which result in taxable temporary differences, include the following:
   (a) Interest revenue received in arrears and included in accounting profit on the basis of time apportionment. It is included in taxable profit, however, on a cash basis.
   (b) Depreciation of an asset is accelerated for tax purposes. When new assets are purchased, allowances may be available against taxable profits which exceed the amount of depreciation chargeable on the assets in the financial statements for the year of purchase.
   (c) Development costs which have been capitalised will be amortised through profit or loss, but they were deducted in full from taxable profit in the period in which they were incurred.
   (d) Prepaid expenses have already been deducted on a cash basis in determining the taxable profit of the current or previous periods.

   **It is worth learning this list (and that below relating to deductible temporary differences) so that you can deal with exam questions on deferred tax quickly and without confusion.**

9. A deductible temporary difference arises where the tax base of an asset exceeds its carrying amount or the tax base of a liability is less than its carrying amount. It results in a deferred tax asset.
10 Common transactions which result in deductible temporary differences include:

(a) Retirement benefit costs (pension costs) are deducted from accounting profit as service is provided by the employee. They are not deducted in determining taxable profit until the entity pays either retirement benefits or contributions to a fund. (This may also apply to similar expenses.)

(b) The NRV of inventory, or the recoverable amount of an item of property, plant and equipment falls and the carrying amount is therefore reduced, but that reduction is ignored for tax purposes until the asset is sold.

(c) Research costs (or organisation/other start-up costs) are recognised as an expense for accounting purposes but are not deductible against taxable profits until a later period.

(d) Income is deferred in the statement of financial position, but has already been included in taxable profit in current/prior periods.

(e) Tax losses arise which are carried forward against future taxable profits.

11 IAS 12 requires deferred tax assets and liabilities to be measured at the tax rates expected to apply in the period when the asset is realised or liability settled, based on tax rates and laws enacted (or substantively enacted) at the end of the reporting period.

12 As with current tax, deferred tax should normally be recognised as income or an expense and included in the net profit or loss for the period in the statement of profit or loss and other comprehensive income. Deferred tax (and current tax) should be charged or credited to other comprehensive income or directly to equity if the tax relates to items also charged or credited to other comprehensive income or directly to equity (in the same or a different period).

13 The tax on profit on ordinary activities is calculated by aggregating:

(a) Income tax on taxable profits
(b) Transfers to or from deferred taxation
(c) Any under-provision or over-provision of income tax on profits of previous years
Chapter 9

1. The currency of the primary economic environment in which the entity operates.
2. The currency in which the financial statements are presented.
3. At the spot rate in force on the date of the transaction.
4. An exchange difference arises either:
   (a) On the settlement of the item
   (b) Where a monetary item is retranslated at the period end

   Exchange differences are recognised in profit or loss.

5. **Monetary items** are units of currency held and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.
6. Assets and liabilities are translated at the closing rate.
   Pre-acquisition reserves are translated at the acquisition-date rate
   Post-acquisition reserves are a balancing figure.
7. The exchange rate in force on the date of each transaction should be applied, however for practical purposes, all items in the statement of profit or loss are usually translated at the average rate.
    
    *Learn the rules in the answers to 6 and 7.*

8. The exchange difference is made up of two elements:
   (i) The difference between opening net assets translated at the opening and closing rates
   (ii) The difference between retained earnings for the year translated at the average and closing rates
Chapter 10

1. A subsidiary is an entity that is controlled by another entity.
2. An associate is an entity over which an investor has significant influence.
3. IFRS 10 states that an investor controls an investee if, and only if, it has all of the following:
   1. Power over the investee
   2. Exposure to, or rights to, variable returns from its involvement with the investee; and
   3. The ability to use its power over the investee to affect the amount of the investor’s returns

   Power over an investee is normally obtained directly from ownership of the majority of voting rights, but it can be derived from other rights, such as:
   - Rights to appoint, reassign or remove key management personnel who can direct the relevant activities
   - Rights to appoint or remove another entity that directs the relevant activities
   - Rights to direct the investee to enter into, or veto changes to, transactions for the benefit of the investor
   - Other rights, such as those specified in a management contract

4. IAS 28 states that if an investor holds 20 per cent or more of the voting power of the investee, it can be presumed that the investor has significant influence over the investee, unless it can be clearly shown that this is not the case. The existence of significant influence is evidenced in one or more of the following ways:
   (a) Representation on the board of directors (or equivalent) of the investee
   (b) Participation in the policy-making process
   (c) Material transactions between investor and investee
   (d) Interchange of management personnel
   (e) Provision of essential technical information

5. A subsidiary is consolidated and an associate is equity accounted.
6. Only those subsidiaries which are held for sale (which are accounted for according to IFRS 5 – not on the FAR syllabus). Otherwise all entities meeting the definition of a subsidiary must be consolidated.
1 Intra-group amounts are cancelled on consolidation.

2 The non-controlling interest is the share of the subsidiary not owned by the parent company. It is measured at acquisition as either
   - The relevant proportion of the fair value of the net assets of the subsidiary, or
   - Fair value.

3 The assets and liabilities of the parent and subsidiary are added together on a line by line basis. Share capital in the consolidated statement of financial position is that of the parent company only.

4 Goodwill arises when the consideration transferred by the parent plus the non-controlling interest of the subsidiary at acquisition exceeds the fair value of the net assets of the subsidiary at acquisition.

5 Goodwill is calculated as:
   - Consideration transferred
   - Non-controlling interest
   - Net assets of acquiree
   - Goodwill

   \[
   \text{Goodwill} = \frac{\text{Consideration transferred} \times \text{Non-controlling interest}}{\text{Net assets of acquiree}} \times \text{Net assets of acquiree}
   \]

6 Positive goodwill is recognised as a non-current asset in the consolidated statement of financial position. It is not amortised but is tested for impairment annually.

7 A bargain purchase or negative goodwill is re-assessed and any remaining amount is recognised immediately in profit or loss.

8 IFRS 3 requires the acquisition-date fair value of contingent consideration to be recognised as part of the consideration for the acquiree.

9 An unrealised profit arises where one group company has sold goods (or a non-current asset) at a profit to another group company during an accounting period, but these goods have not been sold on to a third party outside the group.

10 An unrealised profit (URP) must be adjusted for on consolidation by
   - DEBIT Group retained earnings
   - CREDIT Inventory/non-current assets

   Where the subsidiary is the selling company and there is a non controlling interest, the entry is:
   - DEBIT Group retained earnings (with group share of URP)
   - DEBIT NCI (with NCI share of URP)
   - CREDIT Inventory/non-current assets

11 The subsidiary’s statement of financial position must be adjusted to show fair values. These fair values are incorporated into the consolidation and also into the calculation of goodwill.
Chapter 12

1. The income and expenses of the parent and subsidiaries are added across on a line by line basis. Dividend income received by the parent from subsidiaries is eliminated.

2. The non-controlling interest in profit is calculated as:
   \[ \text{NCI} \% \times \text{profit of subsidiary (after consolidation adjustments attributable to the subsidiary)} \]

3. The amount of the sales made in the period is eliminated from group sales and the same amount is eliminated from group cost of sales.

4. The cost of sales of the selling company is increased by the amount of the URP in the consolidation schedule.

5. Where the transfer has taken place in the year, the URP includes two elements:
   - The profit recorded by the selling company on the transfer
   - The extra depreciation charged as a result of the transfer

6. The results of the subsidiary must be pro-rated prior to consolidation so that only the post-acquisition results are included in the group statement of profit or loss.

7. An impairment of goodwill in the year is normally charged to administrative expenses.
Chapter 13

1. An associate is accounted for using the equity method.
2. The group share of the associate’s profit after tax for the year is included in the consolidated statement of profit or loss in one line immediately before group profit before tax.
3. In the consolidated statement of financial position the investment in associates is included as a non-current asset calculated as:
   - Cost of the investment in the associate
   - Group share of post-acquisition profits
   - Any amounts paid out as dividends
   - Any amount written off the investment

4. The group share of the unrealised profit is adjusted by:
   - **DEBIT** Share of profit or loss of associates
   - **CREDIT** Investment in associate

5. Again the group share only is adjusted, and the double-entry is exactly the same:
   - **DEBIT** Share of profit or loss of associate
   - **CREDIT** Investment in associate

6. Any impairment loss arising in the year is charged against the group share of the associate’s profits recognised in the consolidated statement of profit or loss.
   The investment in associate in the consolidated statement of financial position is shown net of accumulated impairment losses.
Chapter 14

1 **Horizontal analysis** involves comparing one company’s financial statements directly with those of another similar company and considering why differences may be evident.

2 Trend analysis involves comparing the results of one company over time.

3 Ratios may be classified into the following groups:
   - Profitability
   - Liquidity/efficiency
   - Solvency
   - Investor ratios.

4 \[ \text{ROI} = \frac{\text{Earnings before interest and tax} \times \text{sales}}{\text{Total assets} - \text{Current liabilities}} \times 100\% \]
   ROI is sometimes called return on capital employed (ROCE).

5 ROI indicates how well management are utilising the resources available to them to make profits.

6 \[ \text{Asset turnover} = \frac{\text{Sales}}{\text{Total assets} - \text{Current liabilities}} \]

7 Asset turnover is a measure of how well the assets of a business are being used to generate sales.

8 Gearing and interest cover provide an indication of solvency.

9 Leverage is an alternative name for gearing. A high level of gearing is risky as the high level of fixed interest makes the shareholders’ dividend return more susceptible to volatile profits. In turn, this risk makes both equity and loan finance investors less willing to invest in the company.

10 \[ \text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} \]

11 The quick ratio excludes inventory from current assets in the calculation above.

12 \[ \text{Receivables’ days} = \frac{\text{Receivables}}{\text{Credit sales}} \times 365 \text{ days} \]

13 Inventory days indicates the time for which an entity holds goods before they are sold.

14 An increase in payables’ days is often a sign of lack of long-term finance or poor management of current assets, resulting in the use of extended credit from suppliers. Where payment exceeds credit terms, supply may be halted, which may impact a business significantly.

15 \[ \text{Earnings per share} = \frac{\text{Profit attributable to ordinary shareholders}}{\text{Number of ordinary shares}} \]

16 Dividend cover shows the proportion of profit for the year that is available for distribution to shareholders that has been paid (or proposed) and what proportion will be retained in the business to finance future growth.

17 A high P/E ratio indicates strong shareholder confidence in the company and its future.

*The formulae to calculate the various ratios within this chapter must be learned.*
18 The limitations of financial statements include:

- They are based on historical cost information which is out of date.
- They may be subject to manipulation or creative accounting.
- Significant transactions near the year end, seasonal trading and related parties may all distort results.
- The effects of different accounting policies reduce comparability.

19 Limitations of ratio analysis include:

- In a company's first year of trading there will be no comparative figures. So there will be no indication of whether or not a ratio is improving.
- Comparison against industry averages may not be that revealing. A business may be subject to factors which are not common in the industry.
- Ratios based on historic cost accounts may be out of date. In particular, undervalued assets will distort ROI and exaggerate gearing.
- Ratios are influenced by the choice of accounting policy. For instance, a company seeking to maintain or increase its ROI may choose not to revalue its assets.
- Financial statements are subject to manipulation and so are the ratios based on them. Creative accounting is undertaken with key ratios in mind.
- Inflation over a period will distort results and ratios. Net profit, and therefore ROI, can be inflated where FIFO is applied during an inflationary period.
- No two companies, even operating in the same industry, will have the same financial and business risk profile. For instance, one may have better access to cheap borrowing than the other and so may be able to sustain a higher level of gearing.
Glossary of terms
**Accounting policies.** The specific principles, bases, conventions, rules and practices adopted by an entity in preparing and presenting financial statements.

**Accrual accounting.** Depicts the effects of transactions and other events and circumstances on a reporting entity’s economic resources and claims in the periods in which those effects occur, even if the resulting cash receipts and payments occur in a different period.

**Asset.** A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity.

**Assets to equity ratio.** Assets (non-current assets plus net current assets) compared to shareholders’ funds. A measure of gearing (leverage).

**Asset turnover.** Sales compared to investment (capital employed). Can be calculated as sales compared to total assets or sales compared to total assets less current liabilities.

**Associate.** An entity over which the investor has significant influence.

**Borrowing costs.** Interest and other costs incurred by an entity in connection with the borrowing of funds.

**Capital gearing ratio.** A measure of the proportion of a company’s capital that is debt.

**Carrying amount.** The amount at which an asset is recognised after deducting accumulated depreciation and any impairment losses.

**Cash.** Cash on hand and demand deposits.

**Cash equivalents.** Short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

**Cash flows.** Inflows and outflows of cash and cash equivalents.

**Cash-generating unit.** The smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets of groups of assets.

**Capital expenditure.** Expenditure on non-current assets, the net cost of which is to be ‘capitalised’ and depreciated over the anticipated useful working life of the assets.

**Change in accounting estimate.** An adjustment of the carrying amount of an asset or a liability or the amount of the periodic consumption of an asset, that results from the assessment of the present status of, and expected future benefits and obligations associated with, assets and liabilities.

**Closing rate.** The spot exchange rate at the year end date.

**Comparability.** Accounting policies used should be disclosed, to make it possible for users to compare the company’s results with its own prior years and with the results of other companies.

**Conceptual framework.** A statement of generally accepted theoretical principles which form the frame of reference for financial reporting.

**Conceptual Framework for Financial Reporting (‘Conceptual Framework’).** The IASB’s conceptual framework upon which all IFRSs are based. It determines how financial statements are prepared and the information they contain.

**Consolidated financial statements.** The financial statements of a group in which the assets, liabilities, equity, income, expenses and cash flows of the parent and its subsidiaries are presented as those of a single economic entity.

**Cost model.** A non-current asset is carried at its cost less depreciation and any accumulated impairment loss.
Control. An investor (a parent) controls an investee (a subsidiary) when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

Current assets. Assets used in the trading activities of the business such as inventory, trade receivables and cash at bank.

Current cost. Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently. Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.

Current liabilities. Amounts due in the shorter term such as trade payables and sales tax.

Current ratio. Ratio of current assets to current liabilities

Current tax. The amount payable to the tax authorities in relation to the trading activities of the period.

Debt to total assets. Interest bearing debt compared with total assets. A measure of gearing (leverage).

Deductible temporary differences. Temporary differences that will result in amounts that are deductible in determining taxable profit (tax loss) of future periods when the carrying amount of the asset or liability is recovered or settled.

Deferred tax. An accounting measure, used to match the tax effects of transactions with their accounting impact and thereby produce less distorted results.

Deferred tax assets. The amounts of income taxes recoverable in future periods in respect of:
- Deductible temporary differences
- The carry forward of unused tax losses
- The carry forward of unused tax credits.

Deferred tax liabilities. The amounts of income taxes payable in future periods in respect of taxable temporary differences.

Depreciable amount. When dealing with a depreciable asset, this is the historical cost or other amount substituted for cost in the financial statements, less the estimated residual value.

Depreciable assets. Assets which:
- Are expected to be used during more than one accounting period
- Have a limited useful life
- Are held by an entity for use in the production or supply of goods and services, for rental to others, or for administrative purposes.

Depreciation. A method of spreading the cost of non-current assets over their useful lives with an annual charge to profit or loss.

Development. The application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.

Dividend cover. Ratio of earnings per share to dividend per share.

Dividend yield. The return a shareholder is currently expecting on the shares of a company.

Earnings per share (EPS). The amount of net profit for the period that is attributable to each ordinary share which is outstanding during all or part of the period.

Economic value (EV), or value in use. What the existing asset will be worth to the company over the rest of its useful life.

Equity. The residual interest in the assets of the entity after deducting all its liabilities.

Equity method. A method of accounting whereby the investment is initially recorded at cost and adjusted thereafter for the post-acquisition change in the investor’s share of net assets of the investee. The profit or loss of the investor includes the investor’s share of the profit or loss of the investee.
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Exchange difference</strong></td>
<td>The difference resulting from translating a given number of units of one currency into another currency at different exchange rates.</td>
</tr>
<tr>
<td><strong>Exchange rate</strong></td>
<td>The ratio of exchange for two currencies.</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td>Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurring of liabilities that result in decreases in equity, other than those relating to distributions to equity participants.</td>
</tr>
<tr>
<td><strong>Faithful representation</strong></td>
<td>Information that is faithfully represented is complete, neutral and free from error.</td>
</tr>
<tr>
<td><strong>Fair value</strong></td>
<td>The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.</td>
</tr>
<tr>
<td><strong>Financial accounting</strong></td>
<td>The accounting processes required for the reporting the results and financial position of a business and other economic information about a business to others so that they may make decisions on the basis of that information.</td>
</tr>
<tr>
<td><strong>Financial reporting</strong></td>
<td>The process of classifying, recording and presenting financial data in accordance with generally established concepts and principles.</td>
</tr>
<tr>
<td><strong>Foreign currency</strong></td>
<td>A currency other than the functional currency of the entity.</td>
</tr>
<tr>
<td><strong>Functional currency</strong></td>
<td>The currency of the primary economic environment in which the entity operates.</td>
</tr>
<tr>
<td><strong>Future economic benefit</strong></td>
<td>The potential to contribute, directly or indirectly, to the flow of cash and cash equivalents to the entity. The potential may be a productive one that is part of the operating activities of the entity. It may also take the form of convertibility into cash or cash equivalents or a capability to reduce cash outflows, such as when an alternative manufacturing process lowers the cost of production.</td>
</tr>
<tr>
<td><strong>Gains</strong></td>
<td>Increases in economic benefits. As such they are no different in nature from revenue.</td>
</tr>
<tr>
<td><strong>Generally accepted accounting principles (GAAP)</strong></td>
<td>Signifies all the rules, from whatever source, which govern accounting.</td>
</tr>
<tr>
<td><strong>Going concern concept</strong></td>
<td>The entity is normally viewed as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the entity has neither the intention nor the necessity of liquidation or of curtailing materially the scale of its operations.</td>
</tr>
<tr>
<td><strong>Goodwill</strong></td>
<td>Any excess of the consideration transferred in order to obtain control of another entity plus the non-controlling interest in that entity over the fair value of the identifiable assets and liabilities of the entity as at the date of the exchange transaction.</td>
</tr>
<tr>
<td><strong>Group</strong></td>
<td>A parent and its subsidiaries.</td>
</tr>
<tr>
<td><strong>Historical cost</strong></td>
<td>Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition.</td>
</tr>
<tr>
<td><strong>Impairment</strong></td>
<td>A fall in the value of an asset, so that its 'recoverable amount' is now less than its carrying amount in the statement of financial position.</td>
</tr>
<tr>
<td><strong>Impairment loss</strong></td>
<td>The amount by which the carrying amount of an asset exceeds its recoverable amount.</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>Increases in economic benefits during the accounting period in the form of inflows or enhancements of assets or decreases of liabilities that result in increases in equity, other than those relating to contributions from equity participants.</td>
</tr>
<tr>
<td><strong>Intangible assets</strong></td>
<td>Non-monetary assets without physical substance.</td>
</tr>
<tr>
<td><strong>Interest cover</strong></td>
<td>A ratio that shows whether a company is earning enough profits before interest and tax to pay its interest costs comfortably, or whether its interest costs are high in relation to the size of its profits.</td>
</tr>
<tr>
<td><strong>Intra-group trading</strong></td>
<td>Trading/transactions between companies in a group.</td>
</tr>
<tr>
<td><strong>International Accounting Standards Board (IASB)</strong></td>
<td>An independent, privately-funded accounting standard-setter. It is responsible for the setting of International Financial Reporting Standards (IFRSs).</td>
</tr>
<tr>
<td><strong>International Financial Reporting Standards Advisory Council</strong></td>
<td>Provides a formal vehicle to give advice to the IASB.</td>
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International Financial Reporting Standards (IFRSs). The accounting standards issued by the IASB. Earlier accounting standards were known as International Accounting Standards (IASs) and many of these are still in issue.

International Financial Reporting Standards Foundation (IFRS Foundation). An independent body that oversees the IASB.

Inventories. Assets:
- Held for sale in the ordinary course of business;
- In the process of production for such sale; or
- In the form of materials or supplies to be consumed in the production process or in the rendering of services.

Inventory turnover period. Number of days inventories (or stocks of goods) are held for.

Inventory turnover. Number of times in a year that inventory is ‘turned over’ or replaced in the warehouse.

Liability. A present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

Liquidity. The availability of sufficient funds to meet short-term financial commitments as they fall due.

Losses. Decreases in economic benefits. As such they are no different in nature from other expenses.

Management accounting. Sometimes known as cost accounting, is a management information system which analyses data to provide information as a basis for managerial action.

Materiality. Information is material if omitting it or misstating it could influence decisions that users make on the basis of financial information about a specific reporting entity.

Measurement. The process of determining the monetary amounts at which the elements of the financial statements are to be recognised and carried in the statement of financial position and statement of profit or loss and other comprehensive income.

Monetary items. Units of currency held, and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.

Net realisable value. The estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Non-controlling interest. The shares in a subsidiary that are not owned by the parent company.

Non-current assets. Assets for long-term use within the business.

Non-current liabilities. Long term liabilities usually due after more than one year.

Obligation. A duty or responsibility to act or perform in a certain way. Obligations may be legally enforceable as a consequence of a binding contract or statutory requirement. Obligations also arise, however, from normal business practice, custom and a desire to maintain good business relations or act in an equitable manner.

Operating cycle of an entity. The time between the acquisition of assets for processing and their realisation in cash or cash equivalents.

Other comprehensive income. Items of income and expense (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other IFRSs.

Parent. An entity that controls one or more entities (known as subsidiaries).

Payables payment period. Number of days of credit taken from suppliers.

Post-acquisition profits. Profits earned by a subsidiary since the date of acquisition.

Power. Existing rights that give an investor the current ability to direct the relevant activities of its investee.
**Present obligation.** Obligation existing at the present time.

**Presentation currency.** The currency in which the financial statements are presented.

**Price/Earnings (P/E) ratio.** The ratio of a company’s current share price to the earnings per share.

**Prior period errors.** Omissions from, and misstatements in, the entity’s financial statements for one or more prior periods arising from a failure to use, or misuse of, reliable information that:

- Was available when financial statements for those periods were authorised for issue, and
- Could reasonably be expected to have been obtained and taken into account in the preparation

**Profit margin.** Profit as a percentage of sales. Can be based on gross profit, earnings before interest and tax or profit after interest, tax and preference dividends.

**Property, plant and equipment.** Tangible assets that:

- Are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and
- Are expected to be used during more than one period.

**Prospective application.** Relates to a change in accounting policy and of recognising the effect of a change in an accounting estimate, respectively, by:

- Applying the new accounting policy to transactions, other events and conditions occurring after the date as at which the policy is changed; and
- Recognising the effect of the change in the accounting estimate in the current and future periods affected by the change.

**Provision.** A present obligation which satisfies the rest of the definition of a liability, even if the amount of the obligation has to be estimated.

**Qualifying asset.** An asset that necessarily takes a substantial period of time to get ready for its intended use or sale.

**Quick ratio.** Ratio of current assets minus inventory to current liabilities — also known as the acid test ratio.

**Realisable value.** The amount of cash or cash equivalents that could currently be obtained by selling an asset in an orderly disposal.

**Receivables collection period.** Number of days taken to collect receivables outstanding.

**Recognition.** The process of incorporating an item that meets the definition of an element in the statement of financial position or statement of profit or loss and other comprehensive income.

**Reducing balance depreciation** (sometimes called **diminishing balance depreciation**). Where a diminishing amount of the depreciable amount of an asset is written off in each year of its useful life.

**Relevance.** Relevant financial information is capable of making a difference in the decisions made by users.

**Replacement cost.** The amount needed to replace an item with an identical item. This is the same as current cost.

**Reporting entity.** An entity for which there are users who rely on the financial statements as their major source of financial information about the entity.

**Research.** Original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.

**Residual value.** The net amount which the entity expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.

**Retrospective application.** Applying a new accounting policy to transactions, other events and conditions as if that policy had always been applied.

**Return on assets (ROA).** States the earnings before interest and tax as a percentage of total assets.
Return on equity (ROE). States profit after interest, tax and preference dividends as a percentage of shareholders' funds.

Return on investment (ROI). States the earnings before interest and tax as a percentage of the amount of investment (total assets less current liabilities). Sometimes called return on capital employed (ROCE).

Revaluation. Restatement of assets and liabilities, giving rise to increases or decreases in equity.

Revaluation model. Non-current assets are carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

Revenue. The gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants.

Revenue expenditure. Expenditure incurred for the purpose of the trade of the business or to maintain the existing earning capacity of non-current assets.

Significant influence. The power to participate in the financial and operating policy decisions of an investee but is not control or joint control over those policies.

Solvency. The availability of cash over the longer term to meet financial commitments as they fall due.

Spot exchange rate. The exchange rate for immediate delivery.

Statement of changes in equity. A statement showing the movement in the various components of equity (share capital, retained earnings and other reserves) for a period.

Statement of cash flows. A statement showing all movements of cash into and out of a business during the accounting period.

Statement of profit or loss and other comprehensive income. A statement showing the profit or loss of an entity (being income less expenses) and total comprehensive income (being the profit or loss plus other comprehensive income). The section showing profit or loss may be referred to as a statement of profit or loss, an income statement or profit and loss account.

Statement of financial position. Primary financial statement which lists the assets, liabilities and owners' equity of a business. Sometimes referred to as a balance sheet.

Straight line depreciation. Where an equal amount of the depreciable amount of an asset is written off in each year of its useful life.

Subsidiary. An entity that is controlled by another entity (known as the parent).

Substance over form. The principle that transactions and other events are accounted for and presented in accordance with their substance and economic reality and not merely their legal form.

Tax base of an asset or liability. The amount attributed to that asset or liability for tax purposes.

Taxable temporary differences. Temporary differences that will result in taxable amounts in determining taxable profit (tax loss) of future periods when the carrying amount of the asset or liability is recovered or settled.

Trade payables. The amounts due to credit suppliers.

Trade receivables. The amounts owed by credit customers.

Timeliness. Financial information should be available in time to be capable of influencing users’ decisions.

Understandability. Financial information needs to be capable of being understood by users 'having a reasonable knowledge of business and economic activities and accounting'.

Useful life. One of two things:

- The period over which an asset is expected to be available for use by an entity, or
- The number of production or similar units expected to be obtained from the asset by an entity.

Value in use. The present value of estimated future cash flows (inflows minus outflows) generated by an asset, including its estimated net disposal value (if any) at the end of its expected useful life.
**Verifiability.** Information is verifiable if different observers can broadly agree that a particular way of presenting an item is a faithful representation.
Formulae
These formulae are used in Chapter 14, Analysis of financial statements.

<table>
<thead>
<tr>
<th>Formula</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Earnings before interest and tax** | (a) The profit on ordinary activities before taxation; plus
(b) Interest charges on loan capital. |
| **Return on Investment (ROI)** | \[
\frac{\text{Earnings before interest and taxation}}{\text{Total assets less current liabilities}} \times 100\%
\] |
| Profit margin × Asset turnover = Return on investment | \[
\frac{\text{EBIT}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Investment}} = \frac{\text{EBIT}}{\text{Investment}} = \text{ROI}
\] |
| **Return on assets (ROA)** | \[
\frac{\text{Earnings before interest and tax}}{\text{Total assets}} \times 100\%
\] |
| **Return on equity (ROE)** | \[
\frac{\text{Profit after tax and preference dividend}}{\text{Shareholders’ equity}} \times 100\%
\] |
| Profit margin × Asset turnover × Assets to equity = Return on equity | \[
\frac{\text{Profit after tax and preference dividend}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}} = \text{ROE}
\] |
| **Gearing** | \[
\frac{\text{Interest bearing debt}}{\text{Shareholders’ equity} + \text{interest bearing debt}} \times 100\%
\] |
| **Assets to equity ratio** | \[
\frac{\text{Shareholders’ equity} + \text{interest bearing debt}}{\text{Shareholders’ equity}} \times 100\%
\] |
| **Debt to total assets ratio** | \[
\frac{\text{Interest bearing debt}}{\text{Total assets}} \times 100\%
\] |
| **Equity to assets ratio** | \[
\frac{\text{Shareholders’ equity}}{\text{Shareholders’ equity} + \text{interest bearing debt}} \times 100\% \\
\text{or} \quad \frac{\text{Shareholders’ equity}}{\text{Total assets less current liabilities}}
\] |
| **Interest cover** | \[
\frac{\text{Earnings before interest and tax}}{\text{Interest charges}}
\] |
| **Current ratio** | \[
\frac{\text{Current assets}}{\text{Current liabilities}}
\] |
| **Quick ratio** | \[
\frac{\text{Current assets less inventory}}{\text{Current liabilities}}
\] |
| **Accounts receivable collection period** | \[
\frac{\text{Trade receivables}}{\text{Sales}} \times 365 \text{ days}
\] |
| **Inventory turnover period** | \[
\frac{\text{Inventory}}{\text{Cost of sales}} \times 365 \text{ days}
\] |
| **Inventory turnover** | \[
\frac{\text{Cost of sales}}{\text{Inventory}}
\] |
<table>
<thead>
<tr>
<th>Financial Ratio</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accounts payable payment period</strong></td>
<td>Trade accounts payable × 365 days / Purchases</td>
</tr>
<tr>
<td><strong>Earnings per share (EPS)</strong></td>
<td>Profit attributable to ordinary shareholders / Number of ordinary shares in issue</td>
</tr>
<tr>
<td><strong>Dividend cover</strong></td>
<td>Earnings per share / Dividend per (ordinary) share</td>
</tr>
<tr>
<td><strong>Price earnings (P/E) ratio</strong></td>
<td>Current share price / EPS</td>
</tr>
<tr>
<td><strong>Dividend yield</strong></td>
<td>Dividend per share for the year / Current market value of the share (ex-div) × 100%</td>
</tr>
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