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F7 (INT)

**Financial Reporting
(International)**

Welcome to Emile Woolf's study text for
Paper F7 *Financial Reporting (International)* which is:

- Written by tutors
- Comprehensive but concise
- In simple English
- Used around the world by Emile Woolf Colleges including China, Russia and the UK

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Syllabus and study guide

Aim

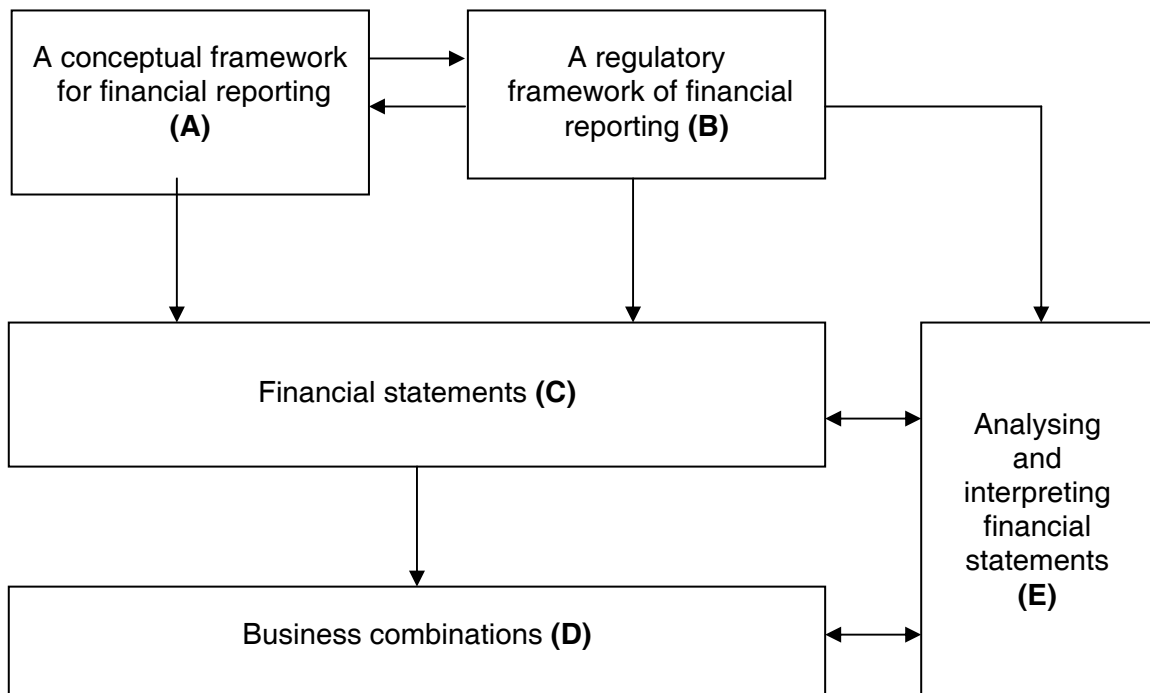
To develop knowledge and skills in understanding and applying accounting standards and the theoretical framework in the preparation of financial statements of entities, including groups and how to analyse and interpret those financial statements.

Main capabilities

After passing this examination, candidates should be able to:

- A** Discuss and apply a conceptual framework for accounting
- B** Discuss a regulatory framework for financial reporting
- C** Prepare and present financial statements which conform to international accounting standards
- D** Account for business combinations in accordance with international accounting standards
- E** Analyse and interpret financial statements

Relational diagram of main syllabus capabilities



Rationale

The financial reporting syllabus assumes knowledge acquired in Paper F3 *Financial Accounting* and develops and applies this further and in greater depth. The syllabus begins with the conceptual framework of accounting with reference to the qualitative characteristics of useful information and the fundamental bases of accounting introduced in the Paper F3 *Financial Accounting* syllabus within the Knowledge module. It then moves into a detailed examination of the regulatory framework of accounting and how this informs the standard setting process.

The main areas of the syllabus cover the reporting of financial information for single companies and for groups in accordance with generally accepted accounting practice and relevant accounting standards.

Finally the syllabus covers the analysis and interpretation of information from published financial reports.

Syllabus

A A conceptual framework for financial reporting

- 1 The need for a conceptual
- 2 Understandability, relevance, reliability and comparability
- 3 Recognition and measurement
- 4 The legal versus the commercial view of accounting
- 5 Alternative models and practices
- 6 The concept of 'faithful representation' ('true and fair view')

B A regulatory framework for financial reporting

- 1 Reasons for the existence of a regulatory framework
- 2 The standard setting process
- 3 Specialised, not-for-profit and public sector entities

C Financial statements

- 1 Statements of cash flows
- 2 Tangible non-current assets
- 3 Intangible assets
- 4 Inventory
- 5 Financial assets and financial liabilities
- 6 Leases
- 7 Provisions, contingent liabilities and contingent assets
- 8 Impairment of assets
- 9 Taxation
- 10 Regulatory requirements relating to the preparation of financial statements
- 11 Reporting financial performance

D Business combinations

- 1 The concept and principles of a group
- 2 The concept of consolidated financial statements
- 3 Preparation of consolidated financial statements including an associate

E Analysing and interpreting financial statements

- 1 Limitations of financial statements
- 2 Calculation and interpretation of accounting ratios and trends to address users' and stakeholders' needs
- 3 Limitations of interpretation techniques
- 4 Specialised, not-for-profit and public sector entities

Approach to examining the syllabus

The syllabus is assessed by a three-hour paper-based examination. All questions are compulsory. It will contain both computational and discursive elements.

Some questions will adopt a scenario/case study approach.

Question 1 will be a 25-mark question on the preparation of group financial statements and/or extracts thereof, and may include a small related discussion element. Computations will be designed to test an understanding of principles.

Question 2, for 25 marks, will test the reporting of non-group financial statements. This may be from information in a trial balance or by restating draft financial statements.

Question 3, for 25 marks, is likely to be an appraisal of an entity's performance and may involve cash flow statements.

Questions 4 and 5 will cover the remainder of the syllabus and will be worth 15 and 10 marks respectively.

An individual question may often involve elements that relate to different subject areas of the syllabus. For example the preparation of an entity's financial statements could include matters relating to several accounting standards.

Questions may ask candidates to comment on the appropriateness or acceptability of management's opinion or chosen accounting treatment.

Questions will test an understanding of accounting principles and concepts and how these are applied to practical examples.

Questions on topic areas that are also included in Paper F3 *Financial Accounting* will be examined at an appropriately greater depth in this paper.

Candidates will be expected to have an appreciation of the need for specified accounting standards and why they have been issued. For detailed or complex standards, candidates need to be aware of their principles and key elements.

Format of the paper

	Number of marks
Three questions (25 marks each)	75
Question 4	15
Question 5	10
	100

Study guide

This study guide provides more detailed guidance on the syllabus. You should use this as the basis of your studies.

A A conceptual framework for accounting

1 The need for a conceptual framework

- (a) describe what is meant by a conceptual framework of accounting.
- (b) discuss whether a conceptual framework is necessary and what an alternative system might be.

2 Understandability, relevance, reliability and comparability

- (a) discuss what is meant by understandability in relation to the provision of financial information.
- (b) discuss what is meant by relevance and reliability and describe the qualities that enhance these characteristics.
- (c) discuss the importance of comparability to users of financial statements.
- (d) distinguish between changes in accounting policies and changes in accounting estimates and describe how accounting standards apply the principle of comparability where an entity changes its accounting policies.
- (e) recognise and account for changes in accounting policies and the correction of prior period errors.

3 Recognition and measurement

- (a) define what is meant by 'recognition' in financial statements and discuss the recognition criteria.
- (b) apply the recognition criteria to:
 - (i) assets and liabilities.
 - (ii) income and expenses
- (c) discuss revenue recognition issues; indicate when income and expense recognition should occur.
- (d) demonstrate the role of the principle of substance over form in relation to recognising sales revenue.
- (e) explain the following measures and compute amounts using:
 - (i) historical cost
 - (ii) fair value/current cost
 - (iii) net realisable value
 - (iv) present value of future cash flows.

4 The legal versus the commercial view of accounting

- (a) explain and demonstrate the importance of recording the commercial substance rather than the legal form of transactions – give examples of where recording the legal form of transactions may be misleading

- (b) describe the features which may indicate that the substance of transactions differs from their legal form.
- (c) apply the principle of substance over form to the recognition and derecognition of assets and liabilities.
- (d) recognise the substance of transactions in general, and specifically account for the following types of transaction:
 - (i) goods sold on sale or return/consignment inventory
 - (ii) sale and repurchase/leaseback agreements
 - (iii) factoring of receivables.

5 Alternative models and practices

- (a) describe the advantages and disadvantages of the use of historical cost accounting.
- (b) discuss whether the use of current value accounting overcomes the problems of historical cost accounting.
- (c) describe the concept of financial and physical capital maintenance and how this affects the determination of profits.

6 The concept of 'faithful representation' ('true and fair view')

- (a) describe what is meant by financial statements achieving a faithful representation.
- (b) discuss whether faithful representation constitutes more than compliance with accounting standards.
- (c) indicate the circumstances and required disclosures where a 'true and fair' override may apply.

B A regulatory framework for financial reporting

1 Reasons for the existence of a regulatory framework

- (a) explain why a regulatory framework is needed.
- (b) explain why accounting standards on their own are not a complete regulatory framework.
- (c) distinguish between a principles based and a rules based framework and discuss whether they can be complementary.

2 The standard setting process

- (a) describe the structure and objectives of the IASC Foundation, the International Accounting Standards Board (IASB), the Standards Advisory Council (SAC) and the International Financial Reporting Interpretations Committee (IFRIC).
- (b) describe the IASB's Standard setting process including revisions to and interpretations of Standards.
- (c) explain the relationship of national standard setters to the IASB in respect of the standard setting process.

3 Specialised, not-for-profit and public sector entities

- (a) distinguish between the primary aims of not-for profit and public sector entities and those of profit oriented entities.

- (b) discuss the extent to which International Financial Reporting Standards (IFRSs) are relevant to specialised, not-for-profit and public sector entities.

C Financial statements

1 Statements of cash flows

- (a) prepare a statement of cash flows for a single entity (not a group) in accordance with relevant accounting standards using the direct and the indirect method.
- (b) compare the usefulness of cash flow information with that of an income statement or statement of comprehensive income.
- (c) interpret a statement of cash flows (together with other financial information) to assess the performance and financial position of an entity.

2 Tangible non-current assets

- (a) define and compute the initial measurement of a non-current (including a self-constructed) asset.
- (b) identify subsequent expenditure that may be capitalised (including borrowing costs), distinguishing between capital and revenue items.
- (c) discuss the requirements of relevant accounting standards in relation to the revaluation of non-current assets.
- (d) account for revaluation and disposal gains and losses for non-current assets.
- (e) compute depreciation based on the cost and revaluation models and on assets that have two or more significant parts (complex assets).
- (f) apply the provisions of relevant accounting standards in relation to accounting for government grants.
- (g) discuss why the treatment of investment properties should differ from other properties.
- (h) apply the requirements of relevant accounting standards for investment property.

3 Intangible assets

- (a) discuss the nature and accounting treatment of internally generated and purchased intangibles.
- (b) distinguish between goodwill and other intangible assets.
- (c) describe the criteria for the initial recognition and measurement of intangible assets.
- (d) describe the subsequent accounting treatment, including the principle of impairment tests in relation to goodwill.
- (e) indicate why the value of purchase consideration for an investment may be less than the value of the acquired identifiable net assets and how the difference should be accounted for.
- (f) describe and apply the requirements of relevant accounting standards to research and development expenditure.

4 Inventory

- (a) describe and apply the principles of inventory valuation.
- (b) define a construction contract and discuss the role of accounting concepts in the recognition of profit.
- (c) describe the acceptable methods of determining the stage (percentage) of completion of a contract.
- (d) prepare financial statement extracts for construction contracts.

5 Financial assets and financial liabilities

- (a) explain the need for an accounting standard on financial instruments.
- (b) define financial instruments in terms of financial assets and financial liabilities.
- (c) indicate for the following categories of financial instruments how they should be measured and how any gains and losses from subsequent measurement should be treated in the financial statements:
 - (i) fair value through profit and loss
 - (ii) held to maturity (use of amortised cost, interest to income)
 - (iii) available for sale (carried at fair value with changes to equity, but dividends to income)
 - (iv) loans and receivables
- (d) distinguish between debt and equity capital.
- (e) apply the requirements of relevant accounting standards to the issue and finance costs of:
 - (i) equity
 - (ii) redeemable preference shares and debt instruments with no conversion rights (principle of amortised cost).

6 Leases

- (a) explain why recording the legal form of a finance lease can be misleading to users (referring to the commercial substance of such leases).
- (b) describe and apply the method of determining a lease type (i.e. an operating or finance lease).
- (c) discuss the effect on the financial statements of a finance lease being incorrectly treated as an operating lease.
- (d) account for assets financed by finance leases in the records of the lessee.
- (e) account for operating leases in the records of the lessee.

7 Provisions, contingent liabilities and contingent assets

- (a) explain why an accounting standard on provisions is necessary.
- (b) distinguish between legal and constructive obligations.
- (c) state when provisions may and may not be made and demonstrate how they should be accounted for.
- (d) explain how provisions should be measured.
- (e) define contingent assets and liabilities and describe their accounting treatment.

- (f) identify and account for:
 - (i) warranties/guarantees
 - (ii) onerous contracts
 - (iii) environmental and similar provisions
 - (iv) provisions for future repairs or refurbishments.

8 Impairment of assets

- (a) define an impairment loss.
- (b) identify the circumstances that may indicate impairments to assets.
- (c) describe what is meant by a cash generating unit.
- (d) state the basis on which impairment losses should be allocated, and allocate an impairment loss to the assets of a cash generating unit.

9 Taxation

- (a) account for current taxation in accordance with relevant accounting standards.
- (b) record entries relating to income tax in the accounting records.
- (c) explain the effect of taxable temporary differences on accounting and taxable profits.
- (d) compute and record deferred tax amounts in the financial statements.

10 Regulatory requirements relating to the preparation of financial statements

- (a) describe the structure (format) and content of financial statements presented under IFRS.
- (b) prepare an entity's financial statements in accordance with the prescribed structure and content.

11 Reporting financial performance

- (a) discuss the importance of identifying and reporting the results of discontinued operations.
- (b) define and account for non-current assets held for sale and discontinued operations.
- (c) indicate the circumstances where separate disclosure of material items of income and expense is required.
- (d) explain the contents and purpose of the statement of changes in equity.
- (e) describe and prepare a statement of changes in equity.
- (f) earnings per share (eps)
 - (i) calculate the eps in accordance with relevant accounting standards (dealing with bonus issues, full market value issues and rights issues)
 - (ii) explain the relevance of the diluted eps and calculate the diluted eps involving convertible debt and share options (warrants).

- (iii) explain why the trend of eps may be a more accurate indicator of performance than a company's profit trend and the importance of eps as a stock market indicator
- (iv) discuss the limitation of eps as a performance measure.

D Business combinations

1 The concept and principles of a group

- (a) describe the concept of a group as a single economic unit.
- (b) explain and apply the definition of a subsidiary within relevant accounting standards.
- (c) describe why directors may not wish to consolidate a subsidiary and the circumstances where this is permitted.
- (d) explain the need for using coterminous year ends and uniform accounting policies when preparing consolidated financial statements.
- (e) explain why it is necessary to eliminate intra-group transactions.

2 The concept of consolidated financial statements

- (a) explain the objective of consolidated financial statements.
- (b) indicate the effect that the related party relationship between a parent and subsidiary may have on the subsidiary's entity statements and the consolidated financial statements.
- (c) explain why it is necessary to use fair values for the consideration for an investment in a subsidiary together with the fair values of a subsidiary's identifiable assets and liabilities when preparing consolidated financial statements.
- (d) describe and apply the required accounting treatment of consolidated goodwill.

3 Preparation of consolidated financial statements including an associate

- (a) prepare a consolidated statement of financial position for a simple group (parent and one subsidiary) dealing with pre and post acquisition profits, minority interests and consolidated goodwill.
- (b) prepare a consolidated income statement and consolidated statement of comprehensive income for a simple group dealing with an acquisition in the period and minority interest.
- (c) explain and account for other reserves (e.g. share premium and revaluation reserves).
- (d) account for the effects in the financial statements of intra-group trading.
- (e) account for the effects of fair value adjustments (including their effect on consolidated goodwill) to:
 - (i) depreciating and non-depreciating non-current assets
 - (ii) inventory
 - (iii) monetary liabilities

- (iv) assets and liabilities not included in the subsidiary's own statement of financial position, including contingent assets and liabilities
- (f) account for goodwill impairment.
- (g) define an associate and explain the principles and reasoning for the use of equity accounting.
- (h) prepare consolidated financial statements to include a single subsidiary and an associate.

E Analysing and interpreting financial statements

1 Limitations of financial statements

- (a) indicate the problems of using historical information to predict future performance and trends.
- (b) discuss how financial statements may be manipulated to produce a desired effect (creative accounting, window dressing).
- (c) recognise how related party relationships have the potential to mislead users.
- (d) explain why figures in a statement of financial position may not be representative of average values throughout the period for example, due to:
 - (i) seasonal trading
 - (ii) major asset acquisitions near the end of the accounting period.

2 Calculation and interpretation of accounting ratios and trends to address users' and stakeholders' needs

- (a) define and compute relevant financial ratios.
- (b) explain what aspects of performance specific ratios are intended to assess.
- (c) analyse and interpret ratios to give an assessment of an entity's performance and financial position in comparison with:
 - (i) an entity's previous period's financial statements
 - (ii) another similar entity for the same reporting period
 - (iii) industry average ratios.
- (d) interpret an entity's financial statements to give advice from the perspectives of different stakeholders.
- (e) discuss how the interpretation of current value based financial statements would differ from those using historical cost based accounts.

3 Limitations of interpretation techniques

- (a) discuss the limitations in the use of ratio analysis for assessing corporate performance.
- (b) discuss the effect that changes in accounting policies or the use of different accounting policies between entities can have on the ability to interpret performance.
- (c) indicate other information, including non-financial information, that may be of relevance to the assessment of an entity's performance.

4 Specialised, not-for-profit and public sector entities

- (a) discuss the different approaches that may be required when assessing the performance of specialised, not-for-profit and public sector organisations.

The conceptual framework

Contents

1	A conceptual framework for financial reporting
2	Financial statements: objectives and assumptions
3	Qualitative characteristics of financial statements
4	Accounting policies
5	The elements of financial statements
6	Fair presentation

A conceptual framework for financial reporting

- The meaning of GAAP
- The meaning of a conceptual framework
- The purpose of a conceptual framework
- The alternative to a conceptual framework
- The current situation

1 A conceptual framework for financial reporting

1.1 The meaning of GAAP

The preparation and presentation of financial statements is based on a large number of concepts, principles and detailed rules. Some of these are contained in law, and others are in financial reporting standards. Many of the most fundamental concepts are not contained in any law or regulation or standard, but are simply accepted accounting principles and conventions.

All the concepts, principles, conventions, laws, rules and regulations that are used to prepare and present financial statements are known as Generally Accepted Accounting Principles or GAAP.

‘Generally accepted accounting principles’ vary from country to country, because each country has its own legal and regulatory system. The way in which businesses operate also differs from country to country. For example, there is US GAAP and UK GAAP.

Many countries have now adopted International Financial Reporting Standards or IFRSs, sometimes called international accounting standards. Although there are no international laws on financial reporting it is now fairly common to refer to ‘international GAAP’. International GAAP includes the IASB’s conceptual framework, plus all the international accounting standards, and all the associated interpretations and guidelines.

1.2 The meaning of a conceptual framework

A conceptual framework is a system of concepts and principles that underpin the preparation of financial statements. These concepts and principles should be consistent with one another.

More recently, the term ‘conceptual framework’ has come to mean not only the principles themselves, but a document or statement that sets out and explains the concepts and principles that support the preparation of financial statements. A conceptual framework is developed for a particular regulatory system or a particular set of generally accepted accounting principles or GAAP.

The International Accounting Standards Board (IASB) has developed a conceptual framework document called the **Framework for the Preparation and Presentation of Financial Statements**.

The IASB **Framework** covers the following topics:

- The objective of financial statements
- Underlying assumptions
- Qualitative characteristics of financial statements
- 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.

1.3 The purpose of a conceptual framework

Most preparers and users of financial statements recognise that there is a need for a formal conceptual framework and that this can be useful in a number of ways. The IASB has stated that the purpose of its **Framework for the Preparation and Presentation of Financial Statements** is to:

- assist the IASB with the development of new international accounting standards
- assist national standard-setting bodies to develop accounting standards for their own country
- provide guidance for the preparation of financial statements, both in applying accounting standards and in dealing with items that are not the subject of any accounting standard
- help auditors to form an opinion on whether a set of financial statements complies with international accounting standards
- assist users in understanding financial statements that have been prepared in accordance with international accounting standards
- provide those who are interested in the work of the IASB with information about its approach to creating accounting standards.

Where there is a formal conceptual framework for accounting, accounting practice and accounting standards are based on this framework.

Lack of a formal framework often means that accounting standards are developed randomly or only to deal with particular problems. The result is that standards might be inconsistent with each other or with legislation.

Lack of a conceptual framework may also mean that accounting standards fail to address important issues. For example, until the IASB developed its **Framework**, there was no proper definition of terms such as 'asset', 'liability', 'income' and 'expenses'.

The business environment is becoming increasingly complex. It is unlikely that accounting standards can cover all possible transactions. Where an entity enters into

an unusual transaction and there is no relevant accounting standard, it can refer to the **Framework** and apply the principles in it.

It can also be argued that a conceptual framework strengthens the credibility of financial reporting and the accounting profession in general.

1.4 The alternative to a conceptual framework

The alternative to a system based on a conceptual framework (a 'principles-based' system) is a system based on detailed rules.

Accounting standards based on detailed rules are open to abuse. 'Creative accounting' is the name given to techniques which enable management to give a biased impression (usually favourable) of the company's performance while still complying with accounting standards and other regulations. During the 1980s there were a number of scandals in which investors were misled by the financial statements of apparently healthy companies which then collapsed. This was one of the original reasons why the IASB and other standard setters developed their conceptual frameworks. Principles are normally much harder to evade than rules.

Another disadvantage of a rule-based system is that standard setters are more likely to be influenced by 'vested interests' such as large companies or a particular business sector. The existence of a conceptual framework is an important safeguard against this kind of political pressure.

Despite these problems, some preparers and regulators still appear to favour rule-based standards. Standards based on principles may require management to use their judgement (and to risk making a mistake), while rules simply need to be followed. This can be important where management might face legal action if an investor makes a poor decision based on information provided in the financial statements.

The use of a conceptual framework can lead to standards that are theoretical and complex. They may give the 'right answer' but be very difficult for the ordinary preparer to understand and apply. However, a system of extremely detailed rules can also be very difficult to apply.

1.5 The current situation

In theory, international accounting standards and international financial reporting standards (IASs and IFRSs) are based on the IASB Framework. In practice, the standards are a mixture of principles and rules.

Many standards (for example, the main accounting standards dealing with non-current assets) reflect the fundamental principles in the Framework and are consistent with each other. However, many of the more recent standards (for example, the standards on financial instruments) have been heavily influenced by US accounting practice. These standards are complex and tend to contain many detailed rules and definitions.

Financial statements: objectives and assumptions

- Users and their information needs
- Objectives of financial statements
- Predictive and confirmatory roles of financial information
- Underlying assumptions in the Framework

2 Financial statements: objectives and assumptions

2.1 Users and their information needs

The users of financial statements include present and future investors, employees, lenders, suppliers, customers, government and government agencies and the general public.

- **Investors** and their advisers need information to help them determine whether they should buy, hold or sell investments. They are interested in the risk attaching to their investments and the return provided by them, including the ability of the entity to pay dividends.
- **Employees** need information which helps them to assess the ability of their employers to provide remuneration, retirement benefits and employment opportunities. They are also interested in information about the stability and profitability of their employers.
- **Lenders** need information that enables them to determine whether their loans and the related interest will be paid when due.
- **Suppliers and other trade creditors** need information that enables them to determine whether amounts owing to them will be paid when due.
- **Customers** are interested in information about the ability of an entity to continue to trade especially when their own business depends on trade with the entity.
- **Governments and their agencies** are need information that helps them to regulate the activities of entities, to allocate resources and to determine taxation policies.
- **Members of the public** may be interested in an entity for a number of reasons. An entity may be a major employer in the locality or a major customer of local suppliers. Financial statements may provide information about the entity's activities and recent developments in its prosperity.

The Framework states that: 'While all of the information needs of these users cannot be met by financial statements, there are needs which are common to all users. As investors are providers of risk capital to the entity, the provision of financial statements that meet their needs will also meet most of the needs of other users that financial statements can satisfy'.

Investors and potential investors are assumed to be the most important users of the financial statements and therefore accounting standards are developed to meet their information needs.

2.2 Objectives of financial statements

The IASB Framework states that the objectives of financial statements are to provide users with information about:

- the financial position of the entity
- the financial performance of the entity
- changes in its financial position.

Users need this information to evaluate the ability of the entity to generate cash, and the timing and certainty of this cash generation. This ability to generate cash determines whether the entity will be able, for example, to pay its employees and suppliers, pay interest and repay loans and pay dividends to its shareholders.

Financial reporting is a means by which the directors are made accountable to the shareholders for:

- the way they have managed the company, and
- the financial results they have achieved.

Financial statements show the results of the **stewardship** of the assets and resources of the entity.

Clearly, it is therefore essential that financial statements should be meaningful and accurate, so that the shareholders can make a proper assessment.

Financial position

The financial position of an entity is affected by:

- the economic resources that it owns or controls
- its financial structure
- its liquidity and solvency
- its capacity to adapt to the changing environment in which it operates.

Information about the economic resources an entity controls, and its ability in the past to modify these resources, is useful in predicting the ability of the entity to generate cash in the future.

Information about financial structure (the 'mix' of debt and equity capital) is useful for predicting the future borrowing needs of an entity, and the way in which its future income will be distributed between lenders and shareholders.

Information about liquidity and solvency is useful in predicting the ability of an entity to meet all its financial commitments in the future when they fall due for payment.

Financial performance

Information about financial performance, and in particular profitability, is useful for:

- assessing future profitability

- assessing potential changes in the resources that an entity might have ('control') in the future
- making a judgement about how effectively an entity would make use of any additional resources that it obtains.

Changes in financial position

Information about changes in financial position is useful for assessing:

- the investing, financing and operating activities of an entity during the reporting period
- its ability to generate cash and
- its need for cash.

Objectives of financial statements: summary

The objectives of financial statements are met by:

- the main financial statements (statement of financial position, income statement, statement of comprehensive income, statement of cash flows, statement of changes in equity) and
- supporting notes to the financial statements, which provide additional details.

2.3 Predictive and confirmatory roles of financial information

Financial information can serve two different roles for its users.

- A **predictive role**. Financial information can be used to predict what might happen in the future, based on what has happened in the past.
- A **confirmatory role**. Financial information can be used to confirm whether past predictions made by the user were correct.

2.4 Underlying assumptions in the Framework

There are two underlying assumptions on which the IASB Framework is based:

- accrual basis
- going concern basis.

Financial statements are prepared on the 'accrual basis' of accounting. This means that the effect of transactions and other events are recognised in the financial statements in the period when they occur and not in the period when the cash flows relating to those transactions occur.

The accrual basis of accounting should be familiar to you from your earlier studies. Accruals, prepayments and depreciation charges, for example, are all examples of the application of the 'accruals concept'.

The going concern basis of accounting is the assumption in preparing the financial statements that the entity will continue to operate for the foreseeable future, and

does not intend to go into liquidation and will not be forced into liquidation. The going concern assumption is particularly relevant for the valuation of assets.

Qualitative characteristics of financial statements

- Understandability
- Relevance
- Reliability
- Comparability
- Constraints on relevant and reliable information

3 Qualitative characteristics of financial statements

The IASB Framework states that qualitative characteristics of information in the financial statements are the attributes that make the information useful to users. There are four main qualitative characteristics of financial information:

- understandability
- relevance
- reliability
- comparability.

3.1 Understandability

Information in financial statements must be readily understandable to users.

Users are assumed to have a reasonable knowledge of business activities and accounting. It is also assumed that they are willing to study information with 'reasonable diligence'.

3.2 Relevance

Information must be relevant to the decision-making needs of users. Information is relevant if it can be used for predictive or confirmatory purposes.

- It has **predictive value** if it helps users to predict what might happen in the future.
- It has **confirmatory value** if it helps users to confirm the assessments and predictions they have made in the past.

Relevant information should not be excluded from the financial statements simply because it is too complex or may be too difficult for some users to understand.

The relevance of information is affected by:

- its nature and
- its materiality.

Materiality provides a threshold or cut-off point, and information is not relevant if it is immaterial (= not material). Information for financial statements is material if its omission

or misstatement could influence the economic decisions of users of the financial statements.

3.3 Reliability

Information must be reliable. Information is reliable when:

- it is free from material error or bias, and
- the information provides a **faithful** representation of what it is supposed to represent.

To be reliable, information must have the following qualities:

- faithful representation
- substance over form
- neutrality
- prudence
- completeness.

Faithful representation

Information should represent faithfully the transactions and other events that it is intended to represent. The IASB Framework identifies internal goodwill as an item that is difficult to identify or measure reliably. Internal goodwill is goodwill that a business entity has created from its own efforts and activities. Internal goodwill has a value. However with any estimated valuation of internal goodwill, there would be a strong risk that the estimate would not be a faithful representation of its true value.

This is why internal goodwill is excluded from the statement of financial position. In other cases, it may be relevant to recognise an item in the financial statements, but with a note provided to explain the risk of error in its recognition or measurement.

Substance over form

To provide a faithful representation, financial information must account for transactions and other events in a way that reflects their substance and economic reality (in other words, their true commercial impact) rather than their legal form. If there is a difference between economic substance and legal form, the financial information should represent the economic substance. An example of presenting substance over form is the method used to account for finance leases, described in a later chapter.

Neutrality

To be reliable, financial information should be neutral. Neutral means 'free from bias'.

Prudence

Prudence is the inclusion of a degree of caution in exercising judgements in conditions of uncertainty. In other words, prudence means using caution when putting a value to an asset, liability or an item of income or expense. The purpose of prudence is to:

- avoid overstating the value of assets or the amount of income, or
- avoid under-stating the amount of a liability or the amount of an expense.

Exercising prudence does not mean that the entity should create 'hidden reserves' by **deliberately** under-stating asset values or income.

An example of exercising prudence is making a reasonable allowance for doubtful debts when giving a valuation to trade receivables in the statement of financial position.

Completeness

To be reliable, financial information should also be complete. However, there are some limitations on the need for completeness.

- **Materiality** – There is no need to obtain complete information if the missing information is immaterial.
- **Cost** – Information should not be 100% complete if the extra cost of making it complete exceeds the benefits obtained by having it complete. In other words, the benefits from having complete information should not exceed the costs of obtaining it.

3.4 Comparability

Financial information must be comparable. It should be comparable over time, so that the information in the financial statements for one year can be compared with previous years. The financial information for one business entity should also be comparable with the information in the financial statements of other business entities.

- Users must be able to compare the financial statements of an entity over time in order to identify **trends** in its financial position or financial performance.
- Users must be able to compare the financial statements of different business entities, in order to assess their relative financial position and financial performance.

Consistency

To be comparable, financial statements should be prepared in a consistent way from one year to the next.

Financial statements for any year should also show **corresponding figures for the previous financial year**, to help users in making comparisons. This is a specific requirement of IAS1 **Presentation of Financial Statements**.

3.5 Constraints on relevant and reliable information

The IASB Framework identifies two constraints on the provision of relevant and reliable information.

- **Timeliness.** If there is undue delay in reporting financial information, it might lose its relevance. However, information produced quickly might be inaccurate and so unreliable. There has to be a balance between timeliness (in order to provide relevant information) and the need for reliability.
- **Cost and benefits.** The benefits obtained from financial information should exceed the cost of obtaining and providing it. Information should not be provided if the cost is not worth the benefit.

Since it is difficult to measure the benefits of financial information, the setters of accounting standards must use their judgement in deciding whether certain items of information should be provided in the financial statements (and if so, in how much detail).

Accounting policies

- Definition
- The selection and application of accounting policies
- Consistency of accounting policies
- Changes in accounting policies

4 Accounting policies

4.1 Definition

Accounting policies are defined (in IAS8) as the ‘specific principles, bases, conventions, rules and practices applied by an entity in preparing and presenting financial statements’.

4.2 The selection and application of accounting policies

The selection and application of accounting policies is covered by IAS8: **Accounting policies, changes in accounting estimates and errors**. IAS8 includes requirements for the selection and application of accounting policies:

- When an item (for example, a transaction) is covered by an accounting standard, or by an Interpretation of a standard, the accounting policy applied to the item should comply with the requirements of the Standard or Interpretation.
- When an item is not covered by an accounting standard, or by an Interpretation of a Standard, management should use judgement in selecting the accounting policy to apply.

The IASB Framework is not itself an accounting standard. If there is a conflict between an accounting standard (or an Interpretation) and the Framework, management must follow the accounting standard.

When judgement is used to select an accounting policy, the financial information resulting from the application of the accounting policy must be:

- relevant to the economic decision-making needs of the users of the financial statements, and
- reliable.

In making a judgement about the selection of an accounting policy, management should refer to the following, in descending order of priority, and consider whether they are applicable:

- the requirements of accounting standards or guidance from Interpretations that deal with similar and related issues
- definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the IASB Framework.

4.3 Consistency of accounting policies

An entity should select and apply its accounting policies consistently for similar transactions, events or conditions, unless an accounting standard requires or permits:

- some items to be categorised separately, and
- a different accounting policy to be applied to this category.

4.4 Changes in accounting policies

A change in accounting policy is permitted **only** under either of two circumstances (IAS8):

- if a change in policy is required by an accounting standard or Interpretation, or
- if a change in accounting policy will result in reliable and more relevant financial information.

Accounting policies and comparability

In order to be able to compare the financial statements of different entities and the financial statements of the same entity over time, users need information about the accounting policies used by an entity. They also need information about any changes to accounting policies and the effects of those changes.

Frequent changes of accounting policies do not improve the information provided to users (and are effectively prohibited by IAS8). However, an entity should not continue to use the same accounting policy for the sake of comparability if there is an alternative that would produce more relevant or more reliable information.

The elements of financial statements

- Assets
- Liabilities
- Equity
- Income
- Expenses

5 The elements of financial statements

The IASB Framework discusses the five elements of financial statements:

- for reporting financial position: assets, liabilities and equity
- for reporting financial performance: income and expenses.

5.1 Assets

An asset is defined as:

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

Resource controlled by the entity

Control is the ability to obtain economic benefits from the asset, and to restrict the ability of others to obtain the same benefits from the same item.

An entity usually uses assets to produce goods or services to meet the needs of its customers, and because customers are willing to pay for the goods and services, this contributes to the cash flow of the entity. Cash itself is an asset because of its command over other resources.

Many assets have a physical form, but this is not an essential requirement for the existence of an asset.

The result of past events

Assets result from past transactions or other past events. An asset is not created by any transaction that is expected to occur in the future but has not yet happened. For example, an **intention** to buy inventory does not create an asset.

Expected future economic benefits

An asset should be expected to provide future economic benefits to the entity. Providing future economic benefits can be defined as contributing, directly or indirectly, to the flow of cash (and cash equivalents) into the entity.

5.2 Liabilities

A liability is defined as:

- a present obligation of an entity
- arising from past events
- the settlement of which is expected to result in an outflow of resources that embody economic benefits.

Present obligation

A liability is an obligation that already exists. An obligation may be legally enforceable as a result of a binding contract or a statutory requirement, such as a legal obligation to pay a supplier for goods purchased.

Obligations may also arise from normal business practice, or a desire to maintain good customer relations or the desire to act in a fair way. For example, an entity might undertake to rectify faulty goods for customers, even if these are now outside their warranty period. This undertaking creates an obligation, even though it is not legally enforceable by the customers of the entity.

Past transactions or events

A liability arises out of a past transaction or event. For example, a trade payable arises out of the past purchase of goods or services, and an obligation to repay a bank loan arises out of past borrowing.

Future outflow of economic resources

The settlement of a liability should result in an outflow of resources that embody economic benefits. This usually involves the payment of cash or transfer of other assets. A liability is measured by the value of these resources that will be paid or transferred.

Some liabilities can be measured only with a substantial amount of **estimation**. These may be called **provisions**.

5.3 Equity

Equity is the residual interest in an entity after the value of all its liabilities has been deducted from the value of all its assets. It is a 'balance sheet value' of the entity's net assets. It does not represent in any way the market value of the equity.

Equity may be sub-classified in the balance sheet, for example, into share capital, retained profits and other reserves that represent capital maintenance adjustments.

5.4 Income

Financial performance is measured by profit or loss. Profit is measured as income less expenses.

Income includes both revenue and gains.

- **Revenue** is income arising in the course of the ordinary activities of the entity. It includes sales revenue, fee income, royalties income, rental income and income from investments (interest and dividends).
- **Gains** include gains on the disposal of non-current assets. Realised gains are often reported in the financial statements net of related expenses. They might arise in the normal course of business activities. Gains might also be unrealised. Unrealised gains occur whenever an asset is revalued upwards, but is not disposed of. For example, an unrealised gain occurs when marketable securities owned by the entity are revalued upwards.

5.5 Expenses

Expenses include:

- **Expenses** arising in the normal course of activities, such as the cost of sales and other operating costs, including depreciation of non-current assets. Expenses result in the outflow of assets (such as cash or finished goods inventory) or the depletion of assets (for example, the depreciation of non-current assets).
- **Losses** include for example, the loss on disposal of a non-current asset, and losses arising from damage due to fire or flooding. Losses are usually reported as net of related income.

Fair presentation

- What is meant by fair presentation (or a true and fair view)
- Fair presentation and compliance with IFRSs
- Where fair presentation conflicts with an accounting standard

6 Fair presentation

6.1 What is meant by fair presentation (or a true and fair view)

Financial statements are often described as showing a 'true and fair view' or 'presenting fairly' the financial position and performance of an entity, and changes in its financial position. In some countries (for example, the UK) this is the central requirement of financial reporting.

Under 'international GAAP' (specifically IAS1) financial statements are required to present fairly the financial position, financial performance and cash flows of the entity.

The IASB Framework does not deal directly with this issue. However, it does state that if an entity complies with international accounting standards, and if its financial information has the desirable qualitative characteristics of information, then its financial statements 'should convey what is generally understood as a true and fair view of such information'.

IAS1 states that: 'Fair presentation requires the faithful representation of the effects of transactions, other events and conditions in accordance with the definitions and recognition criteria for assets, liabilities, income and expenses set out in the Framework.'

The use of the term 'faithful representation' means more than that the amounts in the financial statements should be materially correct. It implies that information should present clearly the transactions and other events that it is intended to represent. To provide a faithful representation, financial information must account for transactions and other events in a way that reflects their substance and economic reality (in other words, their true commercial impact) rather than their legal form. If there is a difference between economic substance and legal form, the financial information should represent the economic substance.

Faithful representation also implies that the amounts in the financial statements should be classified and presented and disclosures made in such a way that important information is not obscured and users are not misled.

6.2 Fair presentation and compliance with IFRSs

The application of IFRSs, with additional disclosure when necessary, is presumed to result in financial statements that achieve a fair presentation. IAS1 states that:

- When the financial statements of an entity comply fully with International Financial Reporting Standards, this fact should be disclosed.
- An entity should not claim to comply with IFRSs unless it complies with **all** the requirements of **every** applicable Standard.

IAS1 appears to equate fair presentation with compliance with accounting standards.

In some situations fair presentation may require more than this. It is important to apply the spirit (or general intention) behind an accounting standard as well as the strict letter (what the standard actually says).

The requirement to 'present fairly' also applies to transactions which are not covered by any specific accounting standard. It is worth noting that there is no IFRS that covers complex transactions and arrangements which have been deliberately structured so that their economic substance is different from their legal form.

IAS 1 states that a fair presentation requires an entity:

- to select and apply accounting policies in accordance with IAS8 **Accounting policies, changes in accounting estimates and errors**. IAS8 explains how an entity should develop an appropriate accounting policy where there is no standard.
- to present information in a manner that provides relevant, reliable, comparable and understandable information
- to provide additional disclosures where these are necessary to enable users to understand the impact of particular transactions and other events on the entity's financial performance and financial position (even where these are not required by IFRSs).

6.3 Where fair presentation conflicts with an accounting standard

IAS1 acknowledges that in **extremely rare** circumstances compliance with a standard or an Interpretation may produce financial statements that are so misleading that they do not provide useful information and no longer give a fair presentation.

An entity can then depart from the requirements of the standard or interpretation. It must disclose:

- that management has concluded that the financial statements present fairly the entity's financial position, financial performance and cash flows;
- that it has complied with applicable standards and interpretations, except that it has departed from a particular requirement to achieve a fair presentation;
- the title of the standard or interpretation from which the entity has departed, the nature of the departure, including the treatment that the standard or interpretation would require, the reason why that treatment would be misleading, and the treatment adopted; and

- for each period presented, the financial impact of the departure on each item in the financial statements that would have been reported in complying with the requirement.

Recognition and measurement

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Accounting concepts

- Consistency of presentation
- Materiality and aggregation
- Offsetting

1 Accounting concepts

In addition to the accounting concepts in the IASB Framework, some other accounting concepts are used in financial reporting. These concepts, together with the underlying assumptions of going concern and accruals, are explained in IAS 1: **Presentation of financial statements**.

1.1 Consistency of presentation

Consistency of presentation is needed if financial information is to be comparable. IAS1 states that there should be consistency in the presentation and classification of items in the financial statements from one year to the next. There are just two exceptions to the requirement for consistency:

- Consistency is not required when it is apparent, following a significant change in the entity's operations or a review of its financial statements, that a different presentation or classification would be more appropriate.
- Consistency is not appropriate if a new accounting standard (or the issue of an Interpretation of a standard by IFRIC) requires a change in the presentation of information.

1.2 Materiality and aggregation

IAS1 also states that each **material** class of similar items should be presented separately in the financial statements.

In addition, items of a dissimilar nature should not be aggregated together in the financial statements (combined as a single item and in a single total), unless their value is immaterial.

1.3 Offsetting

IAS1 states that:

- Assets and liabilities should not be offset against each other.
- Similarly income and expenses should not be offset against each other.

Instead they should be reported separately.

The **exceptions to this rule** are when:

- offsetting is required or permitted by an accounting standard or the Interpretation of a standard

- offsetting reflects the economic substance of a transaction. An example specified in IAS1 is reporting of a gain or loss on disposal of a non-current asset at sale value minus the carrying value of the asset and the related selling expenses.

Recognition in the financial statements: IASB Framework

- Probability of future economic benefit flowing in or out
- Reliability of measurement
- Recognition of assets, liabilities, income and expenses
- Measurements of elements of financial statements

2 Recognition in the financial statements: IASB Framework

The IASB Framework states that an element (asset, liability, equity, income or expense) should be recognised in the statement of financial position or income statement when it:

- meets the definition of an element, and also
- satisfies certain criteria for recognition.

Items that fail to meet the criteria for recognition should not be included in the financial statements. However, some of these items may have to be disclosed as additional details in a **note** to the financial statements.

The criteria for recognition are as follows:

- It must be **probable** that the future economic benefit associated with the item will flow either into or out of the entity.
- The item should have a cost or value that can be measured reliably.

2.1 Probability of future economic benefit flowing in or out

The concept of probability relates to the degree of certainty or uncertainty that the future economic benefit associated with the item will flow into or out of the entity.

The degree of certainty or uncertainty should be assessed on the basis of the evidence available at the time the financial statements are prepared.

For example, if it is considered fairly certain that a trade receivable will be paid at a future date, it is appropriate to recognise the receivable as an asset in the statement of financial position. However, there is probably a reasonable degree of certainty that some trade receivables will become bad debts and the economic benefit will not flow into the entity. It would then be appropriate to recognise an 'expense' for the expected reduction in economic benefits (as an allowance for doubtful debts).

2.2 Reliability of measurement

An item should be recognised in the financial statements only if it has a cost or value that can be measured with reliability.

In many cases, the value of an item has to be estimated because its value is not known with certainty. Using reasonable estimates is an essential part of preparing financial statements, and provided that the estimates are reasonable, it is appropriate to recognise items in the financial statements.

However, if it is not possible to make a reasonable estimate, the item should be excluded from the statement of financial position and income statement.

An item that cannot be estimated with reliability at one point in time might be estimated with greater certainty at a later time, when it would then be appropriate to include it in the financial statements.

2.3 Recognition of assets, liabilities, income and expenses

Recognition of assets

An asset is recognised in the statement of financial position when there is an increase in future economic benefits relating to an increase in an asset (or a reduction in a liability) which can be measured reliably.

An asset should not be recognised when expenses have been incurred but it is unlikely that any future economic benefits will flow to the entity. Instead, the item should be treated as an expense, and its cost should be 'written off'.

Recognition of liabilities

A liability is recognised when it is **probable** that an outflow of resources that embody economic benefits will result from the settlement of a present obligation, and the amount of the obligation can be measured reliably.

Recognition of income

Income is recognised in the income statement when an increase in future economic benefits arises from an increase in an asset (or a reduction in a liability) and this can be measured reliably.

Note that this approach to income recognition is based on changes in assets or liabilities in the statement of financial position. It is what has been called a 'balance sheet approach' to income and expense recognition. Income is recognised as an increase in an asset (for example, cash or trade receivables) or a simultaneous reduction in a liability (for example a bank overdraft).

Recognition of expenses

Expenses are recognised in the income statement when a decrease in future economic benefits arises from a decrease in an asset or an increase in a liability, which can be measured reliably.

Again, note that this is a 'balance sheet approach' to the recognition of expenses. An expense is recognised at the same time as an increase in a liability (for example, trade payables) or a reduction in an asset (for example, cash).

Expenses are recognised in the **income statement** by means of a direct association between items of income and the expenses incurred in creating that income.

- **Matching of costs and income** involves the simultaneous recognition of revenues and related expenses.
- When economic benefits arise over several accounting periods, and the association with income can only be decided in broad terms, expenses should be recognised in the income statement of each accounting period on the basis of '**systematic and rational allocation procedures**'. For example, depreciation charges for a non-current asset are allocated between accounting periods on a systematic and rational basis, by means of an appropriate depreciation policy and depreciation method.
- When an item of expenditure is not expected to provide any future economic benefits, it should be recognised immediately as an expense in the income statement. When the future economic benefits associated with an asset are no longer expected to arise, the value of the asset is written off, and the write-off is treated as an expense.
- An expense may also be recognised when a liability arises without the recognition of any matching asset. For example, a liability might arise when an entity recognises that it will have to make a payment to settle a legal dispute. The cost of the future liability is treated as an expense in the period when the liability is recognised.

2.4 Measurements of elements of financial statements

The IASB Framework states that several measurement bases are used for the elements in financial statements. These include:

- **Historical cost.** Assets are measured at the amount of cash paid, or at the fair value of the consideration given to acquire them. Liabilities are measured at:
 - the amount of proceeds received in exchange for the obligation (for example, bank loan or a bank overdraft), or
 - the amount of cash that will be paid to satisfy the liability.
- **Current cost or current value** is the basis used in current value accounting/current cost accounting. Assets are measured at the amount that would be paid to purchase the same or a similar asset at the current time. Liabilities are measured at the amount that would be required to settle the obligation at the current time.
- **Realisable value (or settlement value).** This method of measurement is relevant when an entity is not a going concern, and is faced with liquidation (and a forced sale of its assets). Assets are measured at the amount that could be obtained by selling them. Liabilities are measured at the amount that would be required to settle them at the current time.
- **Present value.** Assets might be measured at the value of the future net cash inflows that the item is expected to generate, discounted to a present value.

Similarly, a liability might be measured at the discounted present value of the expected cash outflows that will be made to settle the liability.

Historical cost is the most commonly-used measurement basis. However, the other bases of measurement are often used to modify historical cost. For example, inventories are measured at the lower of cost and net realisable value.

The IASB Framework does not favour one measurement base over the others.

IAS18: Revenue

- The purpose of IAS18
- Measurement of revenue
- Sale of goods: revenue recognition
- Rendering of services: revenue recognition
- Interest, royalties and dividends: revenue recognition
- IAS18: disclosure requirements

3 IAS18: Revenue

3.1 The purpose of IAS18

The IASB Framework has a so-called 'balance sheet approach' to revenue recognition. It states that revenue is recognised in the income statement when:

- there is an increase in future economic benefits related to an increase in an asset or a decrease in a liability, **and**
- this increase in economic benefits can be reliably measured.

Revenue is income that arises in the ordinary course of activities and it is referred to by a variety of different names including sales, fees, interest, dividends and royalties.

IAS18 **Revenue** deals in more detail than the Framework with the measurement and recognition of revenue. It defines revenue as 'the gross inflow of economic benefits during the period 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.'

It adds that revenue relates only to economic benefits receivable by the entity for its own account. Amounts collected on behalf of a third party, such as sales tax collected on behalf of the government, must be excluded from revenue because they do not result in an increase in equity.

3.2 Measurement of revenue

IAS18 states that revenue must be measured at 'the fair value of the consideration received or receivable'. Broadly speaking, this is the fair market price less any volume rebates (discount allowed for buying in large quantities) or 'trade discount allowed'.

- If a sale is a cash sale, the revenue is the immediate proceeds of the sale.
- If a sale is a normal credit sale, the revenue is the expected future receipt.

However, in some cases when the payment is deferred, the fair value might be less than the amount of cash that will eventually be received. For example, a company

might sell goods and give the customer interest-free credit. Giving interest-free credit is a financing transaction, and the revenue recognised should be the discounted present value of the future receipts.

The difference between the nominal sale value and the fair value of the consideration is recognised as interest income.



Example

An entity sells an item to a customer for \$55,000. The customer is allowed 12 months of interest-free credit. The sale is made on the last day of the entity's financial year. The discount rate appropriate for the transaction is 10%, and the discounted present value of the future receipt is \$50,000.

In this situation, the revenue from the sale will be recorded as \$50,000 in the year of the sale. In the following year, there will be additional interest income of \$5,000.

3.3 Sale of goods: revenue recognition

IAS18 specifies when revenue should be recognised for the sale of goods. An entity may recognise revenue from the sale of goods only when **all** of the following conditions have been met:

- The entity has transferred to the buyer the 'significant risks and rewards of ownership of the goods'. This normally occurs when legal title to the goods or possession of the goods passes to the buyer.
- The entity does not retain effective control over the goods sold, or retain a continuing management involvement to the degree usually associated with ownership.
- The amount of revenue can be measured reliably.
- It is probable that economic benefits associated with the transaction will flow to the entity.
- The costs incurred (or to be incurred) for the transaction can be measured reliably.



Examples

- (1) Goods are sold by a manufacturer to a retailer, who has the right to return the goods if it is unable to sell them. (The goods are supplied on a 'sale or return' basis.)

Revenue should not be recognised by the manufacturer if receipt of payment from the customer is contingent on the customer being able to sell the goods. The manufacturer still retains significant risks of ownership. Revenue should be recognised when the customer sells the goods, and not before.

- (2) A manufacturer of machinery ships machine parts to a business customer for installation. The machine has not yet been installed. The manufacturer will do the installation work and the cost of the installation work will be a significant part of the total cost of the contract.

Revenue should not yet be recognised because the seller still retains significant risks and rewards of ownership.

- (3) Goods have been sold on credit to a customer in a country where there has been a major political change, and there is now a ban in that country on payments to other countries.

Revenue should not yet be recognised. It is not yet probable that the economic benefits associated with the transaction (payment by the customer) will flow to the seller.

- (4) An entity receives \$25,000 as an advance payment for goods that have not yet been manufactured.

Payment in advance is not recognised as revenue. The money received should be included as a current liability in the balance sheet. (Debit Cash \$25,000, Credit Payments received in advance \$25,000).

Revenue recognition and substance

Financial statements must present fairly the effects of the transactions entered into by an entity. This means that preparers must observe the principle of 'substance over form' by recognising the economic substance of transactions where this is different from their legal form.



Example

Alpha sells an asset to Beta for \$100,000. However, Alpha continues to use the asset in exactly the same way as before, even though Beta is now its legal owner. Alpha has received \$100,000 but IAS 18 does not allow Alpha to recognise this amount as sales revenue. The significant risks and rewards of ownership have not yet passed to Beta. Alpha still controls the asset and can use it in its business (a reward of ownership). No sale has taken place.

The substance of the transaction is that Alpha has raised a loan which is secured on the asset. Therefore Alpha must recognise a liability for \$100,000.

3.4 Rendering of services: revenue recognition

When an entity provides a service to a customer, and the outcome of the transaction can be estimated reliably, revenue should be recognised by reference to the stage of completion of the transaction at the balance sheet date. (This means that revenue may be recognised for a service that has not yet been completed at the balance sheet date).

The recognition of revenue by reference to the stage of completion of a transaction may be referred to as the '**percentage of completion method**'.

IAS18 states that the outcome of a service transaction can be estimated reliably when **all** the following conditions apply.

- The amount of revenue can be measured reliably.
- It is probable that the economic benefits associated with the transaction will flow to the service provider.

- The stage of completion of the transaction at the balance sheet can be measured reliably.
- The costs already incurred for the transaction and the costs that will be incurred to complete the transaction can be measured reliably.

When these conditions are not met, revenue should be recognised only to the extent of the expenses recognised that are recoverable.

For example, suppose that a contract to develop new computer software for a customer has not been completed by the balance sheet date. The revenue from the transaction will be \$70,000 and costs of \$12,000 have been incurred to date. It is not yet certain what stage of completion has been reached, nor what the further costs to completion will be. Revenue in the current period should be \$12,000 and matching costs should be \$12,000, so that there is neither a profit nor a loss in the current financial period.

3.5 Interest, royalties and dividends: revenue recognition

Revenue from interest, royalties and dividends should be recognised when it is probable that the benefits will flow to the entity and the amount of the revenue can be measured reliably.

IAS18 states that revenue from these sources should be recognised as follows.

- **Interest.** Interest income should be recognised on a time proportion basis that takes into account the effective yield on the interest-earning asset.
- **Royalties.** Revenue from royalties should be recognised on an accruals basis, in accordance with the terms of the royalty agreement.
- **Dividends.** Revenue from dividends should be recognised when the right to receive the dividend is established.

3.6 IAS18: disclosure requirements

Accounting standards commonly include disclosure requirements, setting out the information that entities must disclose. IAS18 requires disclosure of:

- the accounting policies adopted for recognising revenue, and
- each significant category of revenue in the period, including revenue from:
 - the sale of goods
 - the rendering of services
 - interest
 - royalties
 - dividends.

In addition, there should be disclosure, for each significant category of income, of the amount of revenue arising from the exchange of goods or services.

Alternatives to historical cost accounting

- Deficiencies in historical cost accounting (HCA)
- Current value accounting
- Constant purchasing power accounting
- The IASB Framework and concepts of capital maintenance
- International accounting standards and measurement
- Fair value

4 Alternatives to historical cost accounting

4.1 Deficiencies in historical cost accounting (HCA)

Traditionally, historical cost accounting (HCA) has been used to prepare financial statements, but with some exceptions. In historical cost accounting:

- assets and liabilities are shown in the statement of financial position at their historical cost (less accumulated depreciation, in the case of non-current assets) and
- income and expenses are recorded at their historical amount.

The main advantage of historical cost accounting is that it provides **objective** measurements of many values. There is often objective evidence for the historical cost of an asset or liability, or the historical amount of income or expenses.

The other significant advantage of historical cost accounting is that it is understandable and easy to apply.

However, historical cost accounting has many weaknesses, particularly when there is a high rate of inflation, and there is a significant rise over time in selling prices and costs. The main weaknesses with HCA during a period of price inflation are as follows:

- The carrying value (net book value) of non-current assets is often significantly lower than their current fair value or market value. For example, an item of land and buildings bought 20 years ago for \$5 million would be worth substantially more now, and to report the asset at its historical cost is misleading.
- The value of inventory in the statement of financial position is its value at the date of purchase or manufacture, not its value at the end of the reporting period. For slow-moving items of inventory, in a period of high inflation the historical cost of the inventory might be substantially different from its current value.
- The cost of sales measured at historical cost does not represent the current value of the assets consumed. The replacement cost of the assets consumed could be much higher than their historical cost, due to a high rate of inflation.
- The income statement therefore under-states the 'real' value of the cost of sales, and so over-states profit. It fails to show the profit in 'real' economic terms.

- If an entity used historical cost accounting to measure profit, and then distributed all this profit as dividends to shareholders, it would be unable to replace all the assets it has consumed in the cost of sales.
- There is no recognition of the effect of inflation on monetary items, such as loans, trade payables and trade receivables. For example, if an entity borrows \$1 million for five years, inflation will reduce the 'real' cost of the loan over time. This results in a benefit for the borrower and the 'loss' for the lender. However, historical cost accounting ignores this.
- Comparative figures for previous periods are at out-of-date values, so that (for example) what appear to be improvements in revenues and profits are really caused by the effects of inflation.

Because historical cost accounting has so many weaknesses, other methods of accounting have been proposed as an alternative to HCA. Two of these are current value accounting and constant purchasing power accounting.

4.2 Current value accounting

The current value approach to financial reporting is based on the principle that assets should be measured at their current value to the business, and the cost of sales should be valued at its current cost as at the time of sale.

The current value of an asset might be any of the following:

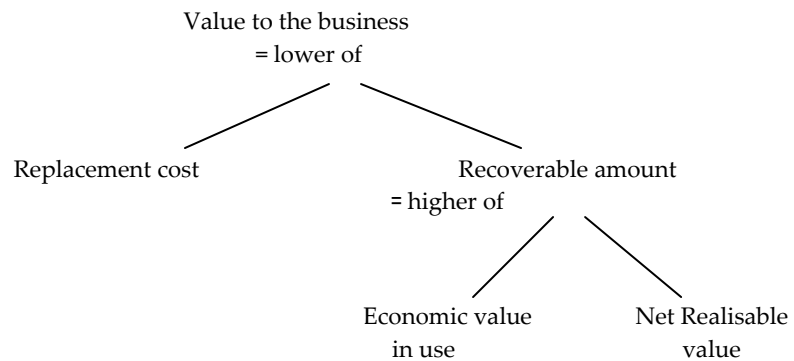
- its current replacement cost
- its current net realisable value
- its economic value. This is the value of the future cash flows arising from the asset, discounted to their present value.

In current value accounting, an asset should be valued at its **deprival value**, (or **value to the business**) which is the loss the business would suffer if it were deprived of the asset.

- Deprival value is the lower of replacement cost and 'recoverable amount'.
- Recoverable amount is the amount the business should recover from an asset it will not want to replace.
- Recoverable amount is the higher of net realisable value and economic value.

Deprival value is therefore defined as the **lower** of:

- replacement cost, and
- the higher of net realisable value and economic value.



Example

An item of inventory has a current replacement cost of \$12,000. It could be disposed of by selling it in its current form for \$8,000. Alternatively, it will be used in the production of finished goods that will contribute economic value of \$20,000 to the business.

The asset has economic value in excess of its replacement cost, and so would be replaced if the business were deprived of it. The current value of the asset is therefore \$12,000.

In current value accounting, all **non-monetary items**, such as tangible non-current assets and inventories are measured at **deprival value**.

Monetary items, such as loans and other debts, trade receivables and monetary liabilities (trade payables, taxation payable and so on) are not adjusted, because they are already measured at their value to the business.

The most common form of current value accounting is **current cost accounting (CCA)**.

Advantages of current value accounting

Current value accounting provides users with relevant information. Assets are stated at their current value to the business and holding gains are excluded from profit. Therefore users can assess whether the business has maintained its operating capability.

Disadvantages of current value accounting

Current value is subjective and therefore less reliable than historical cost. Most of the methods of current value accounting (such as current cost accounting) are complicated to apply.

There may be practical problems in arriving at current value. It may be difficult to obtain a reliable market value for some items, particularly if they are rare or specialised.

Current value accounting assumes that the business intends to replace all its existing assets. This may not be the case. The nature of the business may change, or advances in technology may mean that equivalent assets no longer exist.

It only recognises the effect of price changes relating to the specific assets held by the business. It does not recognise the effect of general inflation.

4.3 Constant purchasing power accounting

Another alternative to HCA is constant purchasing power accounting (CPP), also called general purchasing power accounting (GPP).

With CPP, the financial statements are adjusted so that all the figures are presented in terms of money with the same purchasing power. Items are therefore adjusted to the same 'purchasing power' using a general price index, such as a consumer prices index.

When CPP is used, items are usually adjusted to their price level as at the balance sheet date. The most common form of CPP is therefore 'current' purchasing power accounting.

In CPP, a distinction is made between monetary items and non-monetary items:

- **Monetary items.** These are items whose amount is fixed by contract in terms of units of currency and will not be altered by inflation. Examples of monetary items are trade receivables, trade payables, bank loans and bonds. With inflation, a business loses by having monetary assets but gains by having monetary liabilities, because these lose 'real' value over time.
- **Non-monetary items.** These are items whose value, in terms of 'constant purchasing power', is not affected by inflation. Examples of non-monetary items are inventory and non-current assets. A business entity neither gains nor loses purchasing power with non-monetary items as a consequence of inflation.



Example

On 1 January Year 8, an entity was established with capital of \$10,000. It purchased an item of inventory for \$10,000 which it then sold for \$14,000 (cash). Inflation during Year 8 was 7%. There were no other transactions in the year.

Using historical cost accounting (HCA), the profit for Year 8 is \$4,000 (= \$14,000 – \$10,000).

Using constant purchasing power accounting, the profit for Year 8 is \$3,300 (= \$14,000 – \$10,000 – (7% × \$10,000)).

With CPP accounting profit is adjusted to reflect the **general** change in prices during the year. The historical cost accounting profit of \$4,000 is reduced by \$700 because of inflation. Since inflation has been 7%, the expected cost of a similar item of inventory now would be an additional \$700.

The profit reported by CPP is lower than the profit with HCA. The difference is because CPP allows for the need to maintain the **financial capital** of the business in **real terms**. Historical cost accounting also maintains the **financial capital** of the business, but not in real terms. In this example, if the business paid out all its HCA profit of \$4,000 as a dividend (which is permitted by law) it would no longer be able to go out and buy another similar item of inventory, because the inventory would be expected to cost 7% more.

Advantages of CPP accounting

CPP accounting is a true system of inflation accounting, because it adjusts for changes in general purchasing power.

It is easy for users to assess the performance of an entity over time. CPP also enables meaningful comparisons to be made between the financial statements of different entities.

CPP accounting is objective (a standard index is used) and is simple to apply.

Disadvantages of CPP accounting

CPP accounting measures changes in the value of money, rather than changes in the value of assets. It does not show the current value to the business of assets and liabilities.

It assumes that an entity is only affected by general inflation, rather than by specific price changes (which may be quite different). This means that it may not always provide relevant information.

4.4 The IASB Framework and concepts of capital maintenance

The IASB Framework states that there are two concepts of capital:

- a financial concept of capital
- a physical concept of capital.

Financial capital maintenance

A **financial concept of capital** is that the capital of an entity is measured as its net assets, which is also its equity. Where a financial concept of capital is used, the main concern of users of the financial statements is with the maintenance of the nominal financial capital of the entity.

With a **financial concept of capital maintenance**, a profit is not earned during a period unless (excluding new equity capital raised during the period and adding back any distribution of dividends to shareholders) the financial value of equity at the end of the period exceeds the financial value of equity at the beginning of the period.

This reflects the basic accounting equation:

$$\text{ASSETS less LIABILITIES} = \text{EQUITY}$$

$$\text{OPENING NET ASSETS} + \text{PROFIT} - \text{DISTRIBUTIONS} = \text{CLOSING NET ASSETS}$$

Historical cost accounting reflects the concept of **money financial capital maintenance**. An entity has made a profit if closing equity exceeds opening equity when net assets are measured using historical cost.

Constant purchasing power accounting reflects the concept of **real financial capital maintenance**. An entity has made a profit if closing equity exceeds opening equity when net assets are measured at current prices. (This means that opening equity is uplifted by the general inflation rate.)

Physical capital maintenance

A **physical concept of capital** is that the capital of an entity is represented by its productive capacity or operating capability. Where a physical concept of capital is used, the main concern of users of the financial statements is with the maintenance of the operating capability of the entity.

With a physical concept of capital maintenance, a profit is not earned during a period unless (excluding new equity capital raised during the period and adding back any distribution of dividends to shareholders) the operating capability of the business is greater at the end of the period than at the beginning of the period.

Current value accounting reflects the concept of **physical capital maintenance**.

In a period of inflation, profits reported using a financial concept of capital will normally be higher than profits reported using a physical concept of capital, such as current value accounting.



Example

On 1 January Year 8, an entity was established with capital of \$10,000. It purchased an item of inventory for \$10,000 which it then sold for \$14,000 (cash). There were no other transactions in the year. At the end of Year 8, the purchase cost of the same item of inventory has risen to \$11,000.

Applying the physical maintenance concept, the profit for Year 8 is \$3,000 (= \$14,000 – \$11,000).

Under historical cost accounting, the profit is \$4,000. However, if the business paid out 100% of its profit of \$4,000 as a dividend, it would not be able to go out and buy another item of inventory, because the price of the item is now \$11,000. To maintain the physical operating capability of the entity, profit should be measured as sales less the replacement cost of the item sold.

Comparing the two concepts

Neither the IASB Framework nor accounting standards require the use of a specific capital maintenance concept. In practice, almost all entities use money financial capital maintenance, but both concepts can provide useful information.

Financial capital maintenance is likely to be the most relevant to investors as they are interested in maximising the return on their investment and therefore its purchasing power.

Physical capital maintenance is likely to be most relevant to management and employees as they are interested in assessing an entity's ability to maintain its operating capacity. This is particularly true for manufacturing businesses, where management may need information about the ability of the business to continue to produce the same or a greater volume of goods.

4.5 International accounting standards and measurement

There used to be an international accounting standard IAS15 **Information reflecting the effects of changing prices**. This was withdrawn with effect from 1 January 2005.

Inflation accounting requires the use of a system such as current cost accounting (CCA) or current purchasing power accounting (CPP). Attempts to introduce full inflation accounting have been unpopular. Each system has some advantages but neither is ideal and neither has been widely accepted. It is extremely unlikely that the IASB or any other major standard setter will require either of CCA or CPP in the foreseeable future.

However, most people accept that information based on historical cost is not particularly relevant to users. Many entities attempt to overcome this problem by using **modified historical cost accounting**. Some or all non-current assets are measured at a valuation, instead of at historical cost. For example, properties are often included in the statement of financial position at their current market value.

The issue here is how assets and liabilities should be measured. This is the subject of an important debate within the accounting profession. Some, including the UK Accounting Standards Board, favour **current value** (that is **value to the business** or **deprival value**). This has the advantage that it reflects economic reality and the intentions of management. For example, a business will not sell an asset if it can obtain a greater inflow of cash by continuing to use it (and vice versa). However, current value can be complex to apply in practice and may not be easily understood by users.

Others, including the US Financial Accounting Standards Board favour **fair value**. The IASB is also moving towards greater use of fair value.

4.6 Fair value

Fair value is a possible basis for the valuation of assets in the financial statements. Although it is not described in the IASB Framework, many IASs and IFRSs require it

to be used instead of historical cost or as an alternative to historical cost. For example, IAS 39 requires many types of investment to be measured at fair value.

Fair value is defined as 'the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction' (IAS16).

Fair value is normally open market value. If an item does not have a reliable market value (for example, because it is unusual or specialised), it may be possible to estimate its fair value in other ways.

Fair value may be used in financial statements in the following circumstances.

- After its initial recognition at acquisition, a non-current asset may be re-valued to its fair value.
- Inventory is measured in the statement of financial position at the lower of cost or net realisable value. Net realisable value (NRV) is the selling price of the inventory item in the ordinary course of business, less the estimated further costs to completion and the expected selling costs. NRV may or may not be the same as fair value.
- Revenue should be measured in the income statement at the fair value of the consideration received or receivable (IAS18).

Fair value is often approximately the same as current value, but sometimes fair value and current value can be very different.



Example 1

An entity has a portfolio of investments that are traded in an active market. The fair value of these investments is their market value. The value to the business (current value) of the investments is their replacement cost or their net realisable value. In this case both are the same amount: open market value. (Economic value is not relevant because the investments are held to be sold at a profit, not to be used in the business).

Here, fair value and current value are the same.



Example 2

An entity has a machine. The machine has been specially adapted for use in this entity's particular business. The fair value of the machine is its open market value: \$20,000. This is quite low, because few other businesses could make use of the machine without having to spend a considerable amount of money adapting it and renovating it. The economic value of the machine is \$30,000 and its depreciated replacement cost is \$25,000 (the amount that the entity would have to pay to acquire an equivalent machine which has been used for the same length of time). Therefore the current value of the machine is \$25,000 (lower of replacement cost and recoverable amount).

Here, fair value and current value are different.

Problems with the use of fair value

Fair value is easy to understand and less complicated to apply than value to the business/current value. Arguably, it is also more reliable than value to the business, because market value is more easily verified than (for example) economic value. However, it has some serious disadvantages:

- There may not be an active market for some kinds of asset. Where there is no active market, estimates have to be used and these may not be reliable.
- It anticipates sales and profits which may never happen (the entity may have no plans to sell the asset).
- Market values can move up and down quite rapidly. This may distort trends in the financial statements and make it difficult for users to assess an entity's performance over time.

Despite these problems, it looks increasingly likely that the IASB will require greater use of fair value in future.

Accounting for the substance of transactions

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| 2 | Recognising and derecognising assets and liabilities |
| 3 | Examples of specific transactions |

The importance of accounting for substance

- The IASB Framework
- Examples of previous abuses in this area

1 The importance of accounting for substance

1.1 The IASB Framework

There is no accounting standard on accounting for the substance of transactions. However, the IASB's **Framework for the preparation and presentation of financial statements** refers to 'substance over form' as a factor affecting the **reliability** of financial statements.

If accounting information is to provide a faithful representation of transactions, then those transactions must be accounted for in accordance with their economic substance and economic realities, and not merely in accordance with their legal form.

For example, Entity A may dispose of an asset to Entity B in such a way that legal title appears to have passed to Entity B. However, the agreement may be written in such a way that Entity A continues to enjoy the future economic benefits embodied in the asset. In such circumstances the reporting of a sale would not be a faithful representation of what had really taken place.

The economic substance and the legal form would be different. In such cases, financial statements should report the economic reality ('substance') rather than the legal form of the transaction.

1.2 Examples of previous 'abuses' in this area

The need to account for 'substance over form' has been made apparent in the past by some 'dubious' accounting practices by some companies. In some cases, the legal form of transactions may be misleading. Here are some examples.

Controlled non-subsidiaries

Prior to IAS27 **Consolidated and separate financial statements**, some parent companies deliberately set up entities that did not meet the definition of a subsidiary entity, even though the entity was controlled by them. This meant that the parent entity could avoid consolidation of the 'subsidiary' within its group accounts. This meant that the assets and liabilities of the subsidiary would be excluded from the consolidated group accounts. This could be useful for parent companies wishing to 'hide' certain assets or liabilities.

(This is why IAS27 introduced a change in the definition of a subsidiary. IAS27 defines a subsidiary by looking at control. This matter will be considered further in the chapters on consolidated accounts.)

Leasing

Prior to IAS17 **Leases**, assets leased under a finance lease agreement remained as an asset in the lessor's financial statements, even though the risks and rewards attached to that asset had been transferred to the lessee. A lessee might therefore have effective control over a large quantity of plant and equipment, without having to reveal this information in its statement of financial position.

- IAS17 recognises that although legal title may not have passed to the lessee, the economic reality is that the risks and rewards from ownership have passed to the lessee. The leased asset should therefore be reported as a non-current asset in the lessee's statement of financial position, and not in the lessor's.

Recognising and derecognising assets and liabilities

- Determining the substance of a transaction
- Assets and liabilities
- Recognition of an asset or liability
- Derecognition of an asset or liability

2 Recognising and derecognising assets and liabilities

2.1 Determining the substance of a transaction

In many instances the substance and the legal form of a transaction or event are exactly the same. However in some cases they are not. The substance of a transaction may be different from its legal form if it has any of the following features:

- separation of the legal title to an asset from the ability to enjoy the rewards and benefits of the asset and exposure to the risks of the asset
- a transaction which is linked to others in such a way that the commercial substance cannot be understood without reference to all the transactions
- the inclusion of options within a transaction whose terms make it highly likely that the option will be exercised.

2.2 Assets and liabilities

The key issue in deciding how to account for a transaction is whether an asset or a liability should be recognised in the statement of financial position.

The following definitions, from the **IASB Framework**, are relevant.

An **asset** is a resource:

- controlled by the entity
- as a result of past events
- from which economic benefits are expected to flow to the entity.

A **liability** is:

- a present obligation
- arising from past events
- the settlement of which is expected to result in an outflow of economic benefits.

Both these definitions have been described previously.

2.3 Recognition of an asset or liability

An item should only be **recognised** in the financial statements if:

- it meets the definition of an asset or liability
- there is sufficient evidence of its existence, and
- it can be measured at a monetary amount with sufficient reliability.

2.4 Derecognition of an asset or liability

An entity should cease to recognise an item in the financial statements (**'de-recognition'**) if there has been a transfer to someone else of:

- all significant access to benefits, and
- the exposure to the risks inherent in those benefits.

The guidelines on substance over form, and on the recognition and de-recognition of assets will now be considered within the context of specific business transactions.

Examples of specific transactions

- Inventories on sale or return/consignment inventories
- Sale and repurchase agreements
- Factoring of accounts receivable

3 Examples of specific transactions

3.1 Inventories on sale or return/consignment inventories

Inventory might be supplied by a manufacturer to a dealer on a 'sale or return' basis. Under such an arrangement, the dealer has the right to return the inventory to the manufacturer if he does not sell it within a specified period of time. Inventories are held by the dealer, but legal title remains with the manufacturer until a certain event occurs or a point in time is reached. This might be at the end of a specified period, or on sale to a third party.

For example, a car dealer might hold inventories of motor cars that it can return to the car manufacturer if they are not sold within a specified period of time. Similarly, book publishers supply books to bookshops on a sale or return basis.

Inventory supplied on this basis may be called 'consignment inventory'.

The detailed terms of arrangements between manufacturers and dealers can vary. Only one party, the manufacturer or the dealer, should record the items as inventory.

Deciding who should record the inventory as an asset depends on whether the dealer or the manufacturer bears the risks and rewards of ownership. Similarly, deciding **when** the item ceases to be an asset of the manufacturer and becomes inventory of the dealer will also depend on the details of the arrangement.

The details of the business agreement should therefore be studied carefully. The key factors will be as follows:

- **The right of return over inventories.** If either party has the right of return it is unlikely that ownership will pass to the dealer on delivery.
- **The price at which the sale is set** when ownership eventually passes. If this is the manufacturer's price at the date when ownership eventually passes, this will indicate that the manufacturer has not transferred the key risk of prices falling in the intervening period.
- **Whether or not the dealer has the right to use the inventories.** If the dealer can use the inventories for demonstration purposes then this is likely to trigger transfer to the dealer.

e**Example**

Entity C, a car dealer, obtains its inventory from Entity D, a car manufacturer, on a consignment basis. The agreement between the entities requires Entity C to purchase cars from Entity D on the earlier of:

- sale to a third party
- the end of a three month period

Entity C will pay for the cars at the factory price on delivery.

Entity C has no right to return cars to Entity D during the three-month period and has to insure the cars once they are on its premises.

Required

Consider who has the risks and rewards of ownership, and therefore which entity should recognise an asset for the inventory (the cars) in its financial statements.

a**Answer**

The key risks of ownership appear pass to Entity C **on delivery** of cars from Entity D. This is because Entity C:

- has no right to return cars to Entity D (and so bears the risk of obsolescence and slow-moving inventories)
- pays the factory price on delivery, regardless of when the purchase is made (and therefore Entity D has transferred the risk of falling prices to Entity C)
- is obliged to insure the cars once they have been delivered (which is another risk of ownership).

Therefore Entity C should recognise cars in its statement of financial position (as inventories) from the time of delivery. At delivery, the manufacturer/supplier should account for the items as receivables.

3.2 Sale and repurchase agreements

A sale and repurchase agreement is an agreement between two parties, X and Y, in which Y sells an item to Y 'now' at one price and at the same time agrees to repurchase the item at a future date, probably at a different price.

For example, art dealer X may sell a painting to Art Gallery Y. The sale price is \$500,000, but the art dealer has the right (a call option) to buy back the painting in one year's time for \$550,000.

With a sale and repurchase agreement the question is whether (between the original sale and the subsequent repurchase) the entity that has 'sold' an asset has in fact given up all of the risks and rewards associated with that asset.

- If so, then a sale should be recorded.

- If not, then the asset in question should remain in the statement of financial position of the entity that has 'sold' it with the buy-back option.

Two common forms of this type of arrangement are considered below.

Sale with an option to repurchase

Here, an asset is sold by Entity A to Entity B on terms such that Entity A repurchases the asset in certain circumstances. This could be under a **call option** (i.e. at Entity A's option) or a **put option** (i.e. at Entity B's option).

The key question in each arrangement is whether, in substance, a sale has taken place, or whether the arrangement is a financing one.



Example

Entity E sells goods for \$30,000 to Entity F on 1 July Year 1. Entity E and Entity F have call and put options respectively for 1 July Year 2 for \$32,000.

In other words, Entity E has the right to repurchase the goods on 1 July Year 2 for \$32,000 and Entity F also has the right to require Entity E to repurchase the goods for \$32,000 at that date.

Required

Consider whether, in substance, a sale has taken place and how Entity E should record the transaction.



Answer

The risks and rewards of ownership have not passed to Entity F:

If prices rise beyond \$32,000, Entity E will exercise its call option, buy the goods back from Entity F, and resell the goods at a higher profit. Entity E therefore retains the right to economic benefits.

If prices fall below \$32,000, Entity F will exercise its put option and sell the goods back to Entity E. Entity F may then purchase the goods for a cheaper price. Entity E therefore also remains exposed to the risk of falling prices.

Therefore, in substance, there has been no 'sale'.

- No sale should be recorded by Entity E.
- The receipt of the \$30,000 should be recorded by Entity E as a secured loan from Entity F.

Sale and leaseback

There is a section in IAS17: **Leases** dealing with sale and leaseback agreements. In a sale and leaseback agreement Entity G sells an asset to Entity H, but then immediately leases that asset back from Entity H.

Typically, a company may own and use a large building, which it then sells to another party (say, a property company) and immediately leases back the building, paying an annual rent and continuing to use the building in the same way as before.

The treatment of the 'sale' depends on whether the resultant lease is classified as a **finance lease** or an **operating lease**.

- If the lease is a finance lease then the risks and rewards of ownership pass to the lessee. Since the lessee is the original owner of the asset, the risks and rewards of ownership have never left it, and therefore, in substance, there has been no sale. The asset remains in the 'seller's' statement of financial position at its original value. A lease liability is created for the amount received on the sale.
- If the lease is an operating lease then the risks and rewards of ownership do not pass to the lessee. Therefore the risks and rewards of ownership have passed from the seller to the lessor, and the sale of the asset has taken place. The profit or loss on sale is recognised in the income statement. IAS17 sets out rules for whether this is recognised immediately or over the term of the lease agreement.

3.3 Factoring of accounts receivable

In a factoring agreement, a business entity (the 'seller') makes an arrangement with a 'factor'. The 'seller' transfers its accounts receivable (invoices) to the 'factor', and in return receives an immediate payment of an agreed percentage of the receivables. The factor will agree to make an immediate payment to the entity of (say) up to 80% of the value of the invoices it has undertaken to collect.

For example, if a company arranges for the factoring of its accounts receivable and its monthly invoices to customers are \$100,000 in total, the factor may agree to pay the company \$80,000 each month as an advance on the money receivable (charging interest on the advance), with the balance payable, less the factor's fees, when the debts are eventually collected.

The key issue in accounting for receivables that are subject to a factoring arrangement is to decide whether the company should derecognise the receivables (and remove them from its statement of financial position). This decision should be based on whether the key risks and rewards of ownership of the receivables have passed to the factor.

- If they have not passed to the factor, the receivables have not been sold and the payments from the factor that relate to those receivables should be treated as a loan.
- If they have passed to the factor, the receivables have been sold and should be removed from the statement of financial position. Any profit or loss should be recognised in the income statement.

The key issue is who bears the risk of bad debts. In a factoring agreement, the terms of the agreement will specify what happens in the event of bad debts.

- The factor may agree to bear all the risk of bad debt losses. This is a 'non-recourse agreement' for which the factor charges a higher fee.
- The factor may not accept the risk of bad debts, so that any bad debt losses are incurred by the client company. (This is called a 'with recourse' factoring agreement.)

With a non-recourse factoring agreement, it is appropriate for the client company to de-recognise its receivables, and account for the cash from the factor as sales income and for the balance as receivables due from the factor, rather than its original customers.



Example

Entity G transferred title to its trade receivables of \$200,000 at 31 January Year 1, to a factor. The factor paid 80% of the value of the receivables. The agreement provided that if less than 80% of the receivables proved to be recoverable Entity G would have to make good the factor's losses.

If the factor recovers more than 80% of the value of the receivables, it will keep the difference.

Required

Consider how this transaction should be dealt with in the books of Entity G.



Answer

The risk of bad debts remains with Entity G because:

- if less than 80% of the receivables prove to be recoverable it will have to pay part of the \$160,000 back to Entity G
- if more than 80% of the receivables prove to be recoverable the excess belongs to the factor

Therefore, in substance, there has been no 'sale'. The receivables should remain in the statement of financial position of Entity G and the \$160,000 should be recorded as a secured loan.

The regulatory framework

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The regulatory framework

- The need for regulation
- Sources of regulation
- Principles and rules

1 The regulatory framework

1.1 The need for regulation

There are several reasons why financial reporting practice should be regulated. The most obvious one is that without it, an entity would be free to adopt any accounting treatment that it chose. There are other reasons.

- Persons external to the business are normally dependent on the published financial statements for information about an entity's activities. Regulation ensures that external users of financial statements are provided with information that is relevant to their decisions and reliable.
- Accounting standards and other forms of regulation help to ensure that entities adopt similar accounting treatments for similar items and account for similar transactions in the same way over time. This makes it possible to compare the financial statements of different entities and to compare an entity's performance for the current year with its performance in previous years.
- Without regulation, management would adopt whichever accounting treatment presented its results and position in the best possible light. Sometimes management might deliberately mislead users of the financial statements.

1.2 Sources of regulation

The main sources of regulation are:

- accounting standards
- company law
- for listed companies, the listing rules of the relevant Stock Exchange.

Accounting standards are authoritative statements of how particular types of transaction and event are reflected in the financial statements. In some countries (for example in the UK) they have legal authority, but in most countries they do not have the force of law.

Company law varies from country to country, but typically it sets out rules for determining profits available for distribution, issuing and redeeming share capital, the reserves that a company must have and the uses to which they can be put. In some countries, company law prescribes the format of the main financial statements. These matters are not covered in accounting standards.

There might also be stock market regulations that set out additional the information which entities must supply as a condition of obtaining access to the stock market for

trading in their shares. In the UK for example, companies whose shares are traded on the main London Stock Exchange must first obtain a 'listing' for those shares from the financial markets regulator. To obtain and retain this listing, companies must comply with certain **Listing Rules**, which include some requirements relating to when the information, including financial reports, that 'listed companies' must prepare and provide to the stock market.

1.3 Principles and rules

Company law consists of detailed rules. Accounting standards may be rules-based or principles-based. IASs and IFRSs are mainly principles-based, though it can be argued that in practice they are a mixture of rules and principles.

It is possible for rules and principles to complement each other. Many countries (including the UK, Canada and Australia) have a regulatory system in which company law deals only with a few specific matters. Detailed financial reporting practice is developed by the accounting profession through accounting standards. Accounting standards are generally (though not always) principles-based. This allows reporting practice to develop over time in response to the needs of users and changes in the business environment. Accounting standards usually allow preparers to exercise judgement in developing accounting policies that are appropriate to the circumstances of their particular entity.

- In other countries (including most European countries and Japan), the content of financial statements and accounting practice are prescribed in great detail by company law. There is very little scope for individual judgement. Until fairly recently, accounting standards were almost non-existent in these countries. Because their existing framework is based on detailed rules, some users of financial statements in these countries consider principles-based accounting to be insufficiently rigorous.

Constitution and objectives of the IASC Foundation and the IASB

- The IASC Foundation
- Structure of the IASC Foundation
- The International Accounting Standards Board (IASB)
- The International Financial Reporting Interpretations Committee (IFRIC)
- Standards Advisory Council (SAC)
- The influence of IOSCO
- IFRSs and IASs
- National standard setters and the IASB

2 Constitution and objectives of the IASC Foundation and IASB

2.1 The IASC Foundation

The original International Accounting Standards Committee (IASC) was established in 1973 to develop international accounting standards. The aim of international standards is to harmonise accounting procedures throughout the world. The first International Accounting Standards (IASs) were issued in 1975.

However, international accounting standards cannot be applied in any country without the approval of the national regulators in that country. Many countries, including the US and the UK, have continued to develop their own national accounting standards.

In 2001, the constitution of the IASC was altered, and the Trustees formed the International Accounting Standards Committee Foundation or **IASC Foundation**.

The 22 Trustees of the IASC Foundation are responsible for:

- governance of the Foundation and the bodies within it
- fund-raising.

The **International Accounting Standards Board (IASB)** is the standard-setting body of the IASC Foundation.

The chairman of the IASB is also the Chief Executive of the IASC Foundation, and is accountable to the Trustees.

The objectives of the IASC Foundation

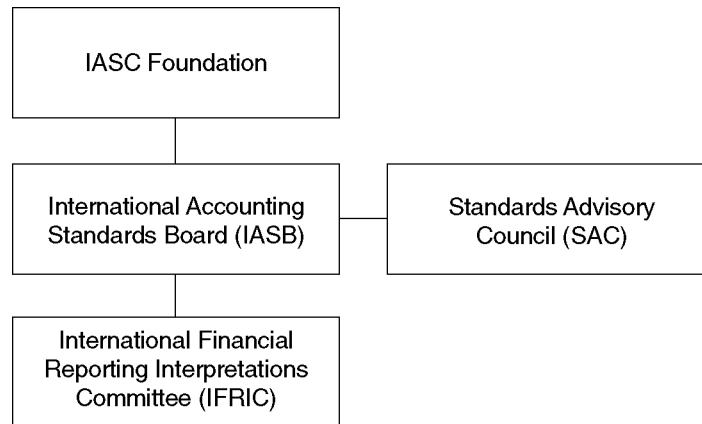
The objectives of the IASC Foundation are to:

- develop, in the public interest, a single set of high-quality global accounting standards

- promote the use and rigorous application of those standards
- to take account of the special needs of small and medium sized entities and emerging economies
- to bring about the convergence of national accounting standards and the international accounting standards.

2.2 Structure of the IASC Foundation

The current structure of the IASC Foundation is as follows.



2.3 The International Accounting Standards Board (IASB)

The IASB is responsible for developing international accounting standards.

The IASB consists of 14 members, all with technical expertise in accounting, who are appointed by the Trustees. Each IASB member is appointed for a five-year term, which might be renewed once for a further five years.

Each IASB member has one vote, and approval of 8 members is required for the publication of:

- an exposure draft
- a revised International Accounting Standard (IAS)
- an International Financial Reporting Standard (IFRS)
- a final Interpretation of the International Financial Reporting Interpretations Committee (IFRIC).

The IASB has full responsibility for all IASB technical matters, including the issue of IFRSs and revised IASs, and has full discretion over the technical agenda of the IASB.

2.4 The International Financial Reporting Interpretations Committee (IFRIC)

The role of IFRIC is to issue rapid guidance where there are differing possible interpretations of an international accounting standard. Its role is therefore to:

- interpret international accounting standards (IASs and IFRSs)

- issue timely guidance on issues not covered by an IAS or IFRS, within the context of the IASB Framework
- publish draft Interpretations for public comment. After studying responses to the draft Interpretation, it will obtain IASB approval for a final (published) Interpretation.

2.5 Standards Advisory Council (SAC)

The Standards Advisory Council (SAC) provides a forum through which the IASB is able to gather opinions and advice from different countries and industries. The SAC consists of experts from different countries and different business sectors, who offer advice to the IASB.

2.6 The influence of IOSCO

IOSCO is the International Organisation of Securities Commissions. Securities Commissions are the regulators of the stock markets in their country. The US Securities and Exchange Commission (SEC) is a key IOSCO member.

Within each country, the financial markets regulator is responsible for the rules that companies must follow if they wish to have their shares traded on the stock market. An aim of IOSCO is to develop international investment, and a view of IOSCO is that international investment will be encouraged if all major companies use the same accounting standards for reporting their financial position and performance.

IOSCO has therefore been an influential supporter of the development of international accounting standards. An IOSCO representative is a non-voting observer at meetings of the IASB.

In 1995 the IASC agreed with IOSCO to develop a set of core standards. IOSCO also agreed that if it approved these core standards, it would endorse them as an acceptable basis of accounting for companies seeking to raise capital and list their shares in all global stock markets (including the US).

The IASC completed its core standards with the issue of IAS39 in December 1998. They were endorsed by IOSCO in 2000. IOSCO has now recommended that its members (including the SEC) should permit multinational issuers of shares to use financial statements based on IASs and IFRSs for cross-border share offerings and listings. (However, the SEC is one of the few authorities that has not accepted IFRS financial statements for company registration purposes.)

In 2004, the European Union (EU) agreed that all listed European companies should prepare their group financial statements in accordance with IASs and IFRSs, for periods beginning on or after 1st January 2005.

Companies listed on any stock exchange in the EU must therefore publish accounts that comply with international accounting standards.

2.7 IFRSs and IASs

When the new Constitution of the IASC Foundation was set up in 2001, the IASB became the body responsible for:

- developing and publishing accounting standards as IFRSs and
- approving and publishing Interpretations of IFRSs.

Before the new Constitution was established, standards had been published as International Accounting Standards (IASs) and Interpretations were published as SIC Interpretations.

The IASB decided that all IASs and SICs that had been issued previously would continue to be applicable, unless they are subsequently amended or withdrawn. This means that IASs still in issue have the same status as IFRSs. It is convenient to refer to IASs and IFRSs as 'international accounting standards'.

2.8 National standard setters and the IASB

The IASB has no power to enforce its standards. Without the support of at least the major national standard setters, IFRSs are unlikely to be adopted.

However, there are strong arguments for international convergence. (International convergence means that the accounting standards of different countries move towards each other, so that they are increasingly similar.) Most national standard setters are committed to the principle of international convergence.

All the major national standard setting bodies are represented on the IASB, so that they can influence the development of new standards and their views are taken into account.

All the major national standard setters issue Discussion Papers and Exposure Drafts in their own countries so that preparers and users in each country can comment on them. Several national standard setters (including the UK Accounting Standards Board) allow entities to adopt IFRSs rather than local standards if they choose. Many standard setters are carrying out short term convergence projects in which domestic standards are moved closer to IFRSs and IASs.

In addition, the IASB has been working with national standard setters on specific projects. For example:

- the IASB and the UK ASB worked together to develop IAS 36 Impairment of assets and IAS 37 Provisions, contingent liabilities and contingent assets (and the equivalent UK standards)
- some other recent standards have been developed by a group of national standard setters and the IASB working together
- the IASB Framework was originally based on work carried out by the US FASB; the Framework has in turn influenced the UK ASB in developing its own conceptual framework
- national standard setters sometimes carry out the research for IASB projects. For example, the UK ASB has carried out work on accounting for leases.

The role of the FASB

The US Financial Accounting Standards Board (FASB) has a special role in developing new international standards.

The IASB and the FASB are currently working together in the following ways:

- A short term convergence project aims to reduce differences between certain IASs and IFRSs and certain US standards. The IASB issued IFRS 5: **Non-current assets held for sale and discontinued operations** as a result of this project.
- Several joint projects are in progress to develop new standards on business combinations, revenue recognition and performance reporting.
- The two standard setters are jointly developing a new conceptual framework. This will eventually replace the current IASB Framework.

However, many preparers and users are becoming concerned about the growing influence of the FASB. They fear that future international standards will be suitable for large listed companies only and will be too rigid and detailed for small and medium-sized entities and those in developing countries.

The standard-setting process

- Developing a new standard
- Interpretations of IFRSs

3 The standard-setting process

3.1 Developing a new standard

The development of a new or revised accounting standard involves widespread consultation and discussion.

- A subject is identified as being appropriate for a new or revised standard.
- An advisory group is established to give advice to the IASB.
- A discussion document is issued by the IASB for public comment.
- After receiving comments on the discussion document, the IASB issues an Exposure Draft (provided it is approved by at least 8 IASB members.) The Exposure Draft also includes the opinions of any dissenting IASB members, and the basis for the IASB's conclusions.
- All comments on the Exposure Draft and discussion documents are considered.
- An approved IFRS is published (provided it is approved by at least 8 IASB members.) This will also include the opinions of any dissenting IASB members, and the basis for the IASB's conclusions.
- Each new or revised standard has a date for implementation.

3.2 Interpretations of IFRSs

An Interpretation of an IFRS might be developed by IFRIC. The purpose of an Interpretation is to give guidance and clarification on issues where an IFRS is not clear, and so the interpretation is uncertain.

- The need for an Interpretation might become apparent after a new IFRS has been issued.
- IFRIC publishes a draft Interpretation for comment.
- After considering the comments received, IFRIC approves an Interpretation.

This interpretation is submitted to the IASB for approval. If approved by at least 8 IASB members, the Interpretation is published.

Specialised, not-for-profit and public sector entities

- Types of entity
- Objectives of specialised entities
- Accounting standards and specialised entities

4 Specialised, not-for-profit and public sector entities

4.1 Types of entity

Most of this study text is about the financial statements of profit-making entities, such as limited liability companies.

Other types of entity also prepare and publish financial statements. These entities include:

- **Not-for-profit entities:** such as charities, clubs and societies. Each of these organisations is set up for a specific purpose. For example, a charity might be set up to campaign for the protection of the natural environment or to help the poor.
- **Public sector entities:** these include central government bodies; local government bodies; and other organisations that operate for the benefit of the general public, such as state schools and hospitals. A public sector entity is owned by the state or by the general public.

Many different types of entity could be described under these headings. These entities are different from limited liability companies, partnerships and sole traders in one vital respect. They do not primarily exist to make a profit.

In practice, the terms '**specialised entity**', '**not-for-profit entity**' and '**public benefit entity**' are often used interchangeably.

4.2 Objectives of specialised entities

The main objective of large commercial entities is to maximise their profits in order to provide a return to their owners (investors) in the form of a dividend. This may not be their only objective (for example, they may provide employment to the local community, or aim to operate in a socially responsible way), but it is their **main** objective.

The objective of owner-managed businesses (small privately owned entities) is also to make a profit.

In contrast, the main objective of a specialised entity is to carry out the activities for which it has been created. Again, this may not be the only objective, because all entities need some form of income. Many large charities, for example, carry out trading activities. However, making a profit is not the **main** aim. In fact, most not-for-profit entities will aim to break even, rather than to generate a surplus of income over expenditure.

4.3 Accounting standards and specialised entities

International accounting standards are designed for profit-making entities.

Whether they are relevant to not-for-profit entities will depend on the way in which these entities have to report and the information that they have to provide. There is a great deal of variation from organisation to organisation and from country to country.

In some countries, charities and public sector bodies are required to follow accounting standards specifically designed for the purpose (in the UK these are called Statements of Recommended Practice.) Alternatively, the form and content of financial statements and the accounting treatments to be followed may be prescribed by law. IASs and IFRSs are probably largely irrelevant for these entities.

Some not-for-profit entities may be able to draw up financial statements in any form that its members or officers wish. Many not-for-profit entities prepare financial statements on a cash basis, rather than on an accruals basis. Public sector bodies may also use 'cash accounting'. (This was the case in the UK until fairly recently.) IASs and IFRSs require accruals accounting.

In some countries, public sector bodies and many charities are increasingly expected to apply commercial-style accounting practices. Even for those entities that are not formally required to adopt them, IASs and IFRSs are a useful source of information on current best practice.

The financial statements of a single company

Contents

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| 2 | Structure and content of the statement of financial position |
| 3 | Structure and content of the statement of comprehensive income |
| 4 | Statement of changes in equity (SOCIE) |

The components of financial statements

- Preparing financial statements
- The format of published accounts
- Fair presentation and compliance with IFRSs
- Comparative information
- Identification of financial statements
- Reporting period

1 The components of financial statements

1.1 Preparing financial statements

You should already have studied the basic rules of financial accounting, so you ought to be reasonably familiar with how a statement of financial position and an income statement are prepared. The basic rules can be summarised as follows.

- The balances on all the accounts in the main ledger (nominal ledger or general ledger) are extracted. These provide the balances on all the ledger accounts for assets, liabilities, capital, income and expenses.
- Adjustments have to be made for 'year-end' items, such as:
 - depreciation charges for non-current assets
 - accruals and prepayments for expense items
 - adjusting the allowance for bad (irrecoverable) debts.
- The adjusted income and expense balances are entered into an income statement to establish the profit or loss for the period.
- The adjusted asset, liability and capital balances, together with the retained profit for the year, are entered into a statement of financial position as at the end of the reporting period.

This process can be used to prepare the income statement and statement of financial position of a single company.

However, other published financial statements should also be prepared by entities that comply with international accounting standards. These are set out in **IAS1 Presentation of Financial Statements**, which was revised in 2007.

1.2 The format of published accounts

IAS1 Presentation of Financial Statements specifies what published 'general-purpose' financial statements should include, and provides a format for a statement of financial position, income statement, statement of comprehensive income, and statement of changes in equity.

IAS1 begins by stating the objective of general-purpose financial statements. This is to provide information about the financial position of the company, and its financial performance and cash flows, that is useful to a wide range of users in making economic decisions.

A **complete set of financial statements** consists of:

- a statement of financial position as at the end of the period
- a statement of comprehensive income for the period income statement
- a statement of changes in equity for the period
- a cash flow statement (cash flow statements are dealt with in a later chapter)
- notes to these statements, consisting of a summary of significant accounting policies used by the entity and other explanatory notes.

In addition, when an entity applies a new accounting policy retrospectively, or if it makes a retrospective re-statement of items or re-classifies items in its financial statements, the financial statements should also include a statement of financial position as at the beginning of the earliest comparative period. When this occurs, the entity will present three statements of financial position, as at:

- the end of the current period
- the end of the previous period, and
- the beginning of the earliest comparative period.

1.3 Fair presentation and compliance with IFRSs

Financial statements should present fairly the financial position, financial performance and cash flows of the entity. The application of IFRSs, with additional disclosure when necessary, is presumed to result in financial statements that achieve a fair presentation.

- When the financial statements of an entity comply fully with International Financial Reporting Standards, this fact should be disclosed.
- An entity should not claim to comply with IFRSs unless it complies with **all** the requirements of **every** applicable Standard.

1.4 Comparative information

Comparative information for the previous accounting period should be disclosed, unless an International Financial Reporting Standard permits or requires otherwise.

1.5 Identification of financial statements

IAS1 requires that each component of the financial statements should be properly identified, and the following information should be displayed prominently:

- the name of the reporting entity
- whether the financial statements cover an individual entity or a group (consolidated accounts for groups are described in later chapters)

- the date of the end of the reporting period or the period covered by the statement, whichever is appropriate
- the currency in which the figures are reported
- the level of rounding used in the figures (for example, whether the figures are in dollars, thousands of dollars or millions of dollars).

1.6 Reporting period

Financial statements should be presented at least annually. If an entity changes the date of the end of its reporting period, and a reporting period longer or shorter than one year is used, its financial statements should disclose:

- the period covered by the financial statements
- the reason why the period is not one year, and
- the fact that the comparative figures for the previous year are not comparable.

Structure and content of the statement of financial position

- Note on terminology
- Current and non-current assets and liabilities
- Current assets
- Current liabilities
- Information to be presented on the face of the balance sheet
- Equity capital and reserves

2 Structure and content of the statement of financial position

2.1 Note on IAS1 and terminology

The revised version of IAS1 in 2007 introduced a number of changes in terminology in financial statements, which are incorporated into this study text. One of the changes was to re-name the 'balance sheet' as the 'statement of financial position', which is a more accurate description of what the statement actually is.

As a consequence of this change, 'balance sheet date' has been re-named as 'end of the reporting period' and 'post balance sheet events' are now 'events after the reporting period'.

IAS1 sets out the requirements for information that must be presented in the statement of financial position or in notes to the financial statements, and it also provides Guidance on implementing IAS1. This Guidance includes an illustrative format for a statement of financial position. You should learn this format and be able to apply it for your examination.

2.2 Current and non-current assets and liabilities

Current and non-current items should normally be presented separately in the statement of financial position, so that:

- current and non-current assets are divided into separate classifications , and
- current and non-current liabilities are also classified separately.

As a general rule, an amount is 'current' if it is expected to be recovered or settled no more than 12 months after the end of the reporting period.

2.3 Current assets

IAS1 states that an asset should be classified as a current asset if it satisfies **any** of the following criteria:

- The entity expects to realise the asset, or sell or consume it, its normal operating cycle.

- The asset is held for trading purposes.
- The entity expects to realise the asset within 12 months after the reporting period.
- It is cash or a cash equivalent. (Note: An example of 'cash' is money in a current bank account. An example of a 'cash equivalent' is money held in a term deposit account with a bank.)

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

This definition allows inventory or trade receivables to qualify as current assets, even if they may not be realised into cash within 12 months, provided that they will be realised in the entity's normal operating cycle or trading cycle.

2.4 Current liabilities

IAS1 also states that a liability should be classified as a current liability if it satisfies **any** of the following criteria:

- The entity expects to settle the liability in its normal operating cycle.
- The liability is held primarily for the purpose of trading. This means that all trade payables are current liabilities, even if settlement is not due for over 12 months after the end of the reporting period.
- It is due to be settled within 12 months after the end of the reporting period.
- The entity does **not** have the unconditional **right** to defer settlement of the liability for at least 12 months after the end of the reporting period.

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

Changing from non-current liability to current liability

Liabilities that were originally non-current, such as a medium-term bank loan or a liability for a finance lease, may become current in a subsequent year, when they become repayable within 12 months.



Example

A company has a financial year end of 31 December. On 31 October Year 1, it took out a bank loan of \$50,000. The loan principal is repayable as follows:

- \$20,000 on 31 October Year 3
- \$30,000 on 31 October Year 4

Required

Show how the loan should be presented in the statement of financial position:

- as at 31 December Year 1
- as at 31 December Year 2
- as at 31 December Year 3.

a**Answer**

In the statement of financial position at 31 December Year 1, the full bank loan of \$50,000 will be a non-current liability.

In the statement of financial position at 31 December Year 2, there will be a long-term liability of \$30,000, and a current liability for the \$20,000 repayable on 31 October Year 3.

In the statement of financial position at 31 December Year 3, there will be a current liability of \$30,000.

There is an exception to this rule. A liability can continue to be shown as a long-term liability, even if it is repayable within 12 months, if the entity has the 'discretion' or right to refinance (or 'roll over') the loan at maturity.

2.4 Information to be presented on the face of the statement of financial position

IAS1 provides a list of items that, **as a minimum**, must be shown on the face of the statement of financial position as a 'line item' (in other words, on a separate line in the statement):

Assets

- (a) Property, plant and equipment
- (b) Investment property
- (c) Intangible assets
- (d) Long-term financial assets, such as long-term holdings of shares in other companies, with the exception of item (e) below
- (e) Investments accounted for using the equity method (this is explained in a later chapter on investments in associates)
- (f) Biological assets
- (g) Inventories
- (h) Trade and other receivables
- (i) Cash and cash equivalents.

Liabilities

- (j) Trade and other payables
- (k) Provisions
- (l) Financial liabilities, excluding any items in (j) and (k) above: (for example, bank loans)
- (m) Liabilities and assets for current tax, as required by IAS12 **Income Taxes**
- (n) Deferred tax liabilities and deferred tax assets

Equity

- (o) Issued capital and reserves attributable to the **owners** of the entity. (The term 'owners', introduced by the revised version of IAS1 in 2007, refers to the **equity holders**.)

- (p) Non-controlling interest or minority interest, presented within equity. (Minority interest or non-controlling interest might be included in a consolidated statement of financial position for a group of companies. Consolidated accounts are described in later chapters.)

Separate line items are also required in the statement of financial position in accordance with the requirements of IFRS5: **Non-current assets held for sale and discontinued operations**. These requirements are explained in a later chapter.

Additional line items should be included in the statement of financial position when presenting them separately and is 'relevant to an understanding of the entity's financial position' (IAS1).

Information to be shown on the face of the statement of financial position or in notes

Some of the line items in the statement of financial position should be sub-classified into different categories, giving details of how the total figure is made up. This sub-classification may be presented either:

- as additional lines on the face of the statement of financial position (adding up to the total amount for the item as a whole) or
- in notes to the financial statements.

For example:

- Tangible non-current assets should be divided into sub-categories, as required by IAS16 **Property, Plant and Equipment**.
- Receivables should be sub-classified into trade receivables, receivables from related parties, prepayments and other amounts.
- Inventories are sub-classified in accordance with IAS2 Inventories into categories such as merchandise, materials, work-in-progress and finished goods.
- Equity capital and reserves must also be sub-categorised, into categories such as paid-up share capital, share premium and reserves.



Example: statement of financial position of an individual entity

IAS1 does not specify what the exact format of the statement of financial position should be. However, it includes an illustrative statement of financial position in Guidance to implementing the Standard (which is an appendix to the Standard). The example below is based on that example. Illustrative figures are included.

Statement of financial position of ABCD Entity as at 31 December 20XX

	\$m	\$m
<i>Assets</i>		
Non-current assets		
Property, plant and equipment	205.1	
Intangible assets	10.7	
Investments ('available for sale financial assets')	6.8	
		222.6

Current assets		
Inventories	17.8	
Trade and other receivables	15.3	
Cash and cash equivalents	<u>0.7</u>	33.8
		<u>33.8</u>
Total assets		<u>256.4</u>
Equity and liabilities		
Equity		
Share capital	50.0	
Other reserves	31.9	
Retained earnings (accumulated profits)	<u>60.6</u>	142.5
Total equity		
Non-current liabilities		
Long-term borrowings	30.0	
Deferred tax	4.5	
Total non-current liabilities	<u>34.5</u>	
Current liabilities		
Trade and other payables	67.1	
Short-term borrowings (bank overdraft)	3.2	
Current portion of long-term borrowing	5.0	
Current tax payable	<u>4.1</u>	
Total current liabilities	<u>79.4</u>	113.9
Total liabilities		<u>113.9</u>
Total equity and liabilities		<u>256.4</u>

2.5 Equity capital and reserves

Certain information about equity capital and reserves must be shown either on the face of the statement of financial position or in a note to the financial statements. This information includes:

- the number of shares authorised
- the number of shares issued and fully paid, and issued but not fully paid
- the par value of each share
- a reconciliation between the number of shares 'outstanding' (shares in issue) at the beginning and at the end of the year
- the rights and restrictions attached to each class of shares (if any)
- a description of the nature and purpose of each reserve.

Note on the presentation of dividends

Before the revision of IAS1, it was permissible to include 'dividends payable' in the statement of financial position, provided that the dividend payment was declared

before the end of the reporting period but the dividends had not yet been paid. This method of presentation is no longer allowed.

Dividend payments ('distributions' of dividends) during the period **must not be shown** in the income statement or the statement of comprehensive income. Dividends **paid** during the financial year are shown as an item in:

- the statement of changes in equity, and
- the statement of cash flows.

Any 'dividends payable' at the year-end must not be shown in the statement of financial position, but should be shown, together with the amount per share, in a note to the financial statements.

Structure and content of the statement of comprehensive income

- A single statement or two statements
- Information to be presented on the face of the statement of comprehensive income
- Analysis of expenses
- Analysis of expenses by their nature
- Analysis of expenses by their function
- Preparing a statement of financial position or statement of comprehensive income

3 Structure and content of the statement of comprehensive income

3.1 A single statement or two statements

IAS1 requires an entity to present all items of income and expense during a period in either:

- a single statement of comprehensive income, or
- in two statements, an income statement followed by a statement of comprehensive income: these two separate statements should include all the information that would otherwise be included in the single statement of comprehensive income.

For the purpose of explanation, it might be useful to think of the presentation of the information in two separate statements:

- An income statement shows the components of profit or loss. It begins with 'Revenue' and ends with 'Profit (or Loss)' for the period after tax.
- If the income statement is shown separately, the statement of comprehensive income shows 'other comprehensive income' during the period, including any related tax.

(A single statement of comprehensive income simply combines these two statements into one.)

If an examination question asks you to prepare a statement of comprehensive income, you should prepare a single statement, combining the income statement elements and the other comprehensive income.

If an examination question asks you to prepare an income statement, this will mean the statement from 'revenue' to 'profit or loss for the year'.)

Examples of other comprehensive income

There are several examples of 'other comprehensive income' but two that might be relevant for your examination are:

- changes in the revaluation surplus (revaluation reserve) on the revaluation of a non-current asset, in accordance with IAS16 and IAS38
- gains or losses on the revaluation of financial assets classified as 'available for sale'.

Definition of total comprehensive income

Total comprehensive income during a period is the sum of:

- the profit or loss for the period and
- other comprehensive income.

3.2 Information to be presented on the face of the statement of comprehensive income

As a **minimum**, IAS1 requires that the statement of comprehensive income should include line items showing the following amounts for the financial period:

- (a) revenue
- (b) finance costs (for example, interest costs)
- (c) share of the profit or loss of **associates or joint ventures**, accounted for by the 'equity method'
- (d) tax expense
- (e) an amount related to the profit or loss from discontinued operations (IFRS5)
- (f) profit or loss
- (g) each component of 'other comprehensive income', excluding amounts in (h)
- (h) share of the 'other comprehensive income' of associates (and joint ventures accounted for by the 'equity method')
- (i) total comprehensive income.

For a **consolidated** statement of comprehensive income for a group of companies, the following items should also be shown on the face of the statement as allocations of profit or income in the period:

- profit or loss for the period attributable to non-controlling interests (also called minority interests)
- profit or loss attributable to the owners (equity holders) of the parent entity
- total comprehensive income attributable to non-controlling interests
- total comprehensive income attributable to the owners of the parent entity.

When an entity presents an income statement separately from the statement of comprehensive income, the **income statement** must include the items listed above as (a) to (f) (and also, in a consolidated income statement for a group of companies,

the profit or loss attributable to non-controlling interests and the owners of the parent company).

Additional line items should be presented on the face of the income statement or the statement of comprehensive income when it is relevant to an understanding of the entity's financial performance.

Discontinued operations are operations carried on by the entity at the beginning of the year, but discontinued at some time during the year. The profit or loss from the discontinued operation includes both:

- the profit or loss (after tax) that it made in the year up to the time of discontinuation, plus
- the gain or loss (after tax) on the disposal of the assets in the discontinued operation.

Recognition in profit or loss

With the introduction of a requirement to present a statement of comprehensive income, it is important to distinguish between:

- items that should be included in the section of the statement between 'revenue' and 'profit', and
- other comprehensive income.

A useful way of making this distinction is that if an item is included in the statement of comprehensive income, between 'revenue' and 'profit', the item is '**recognised within profit or loss**'. This term is now used in accounting standards.

Reclassification adjustments

A reclassification adjustment occurs when an item that has been recognised as 'other comprehensive income' in the statement of comprehensive income is subsequently re-classified as profit or loss.

- For example, a company might hold some 'available for sale' shares in another company as an investment, which it re-values upwards by \$500,000 in one year. If the shares are still held by the company at the year-end, the unrealised gain would be reported as 'other comprehensive income'. If the shares are then disposed of in the next year for a gain of \$500,000, the previously unrealised gain in other comprehensive income becomes a realised gain in profit or loss.
- When this happens, a reclassification adjustment is required. The realised gain is reported as part of profit for the period. However to avoid double-counting the income, the previously reported unrealised gain in other comprehensive income must be reversed, and deducted from other comprehensive income.

Extraordinary items are not permitted

IAS1 states that there should be **no extraordinary items** of income or expense in the statement of comprehensive income or the income statement (if presented

separately), either on the face of the statement itself or in a note to the financial statements.

(Note: An 'extraordinary item' is not the same as a 'material item' of income or expense, which should be disclosed – see below.)

Information to be shown on the face of the statement of comprehensive income (or the income statement, if separate) or in the notes

The following information may be shown either on the face of the statement of comprehensive income or in a note to the financial statements:

- **material items** of income and expense
- an **analysis of expenses**, providing either:
 - expenses analysed by their nature, or
 - expenses analysed by the function that has incurred them.

IAS1 encourages entities to show this analysis of expenses on the face of the statement of comprehensive income (or income statement), rather than in a note to the accounts.

Material items that might be disclosed separately include:

- a write-down of inventories from cost to net realisable value, or a write-down of items of property, plant and equipment to recoverable amount
- the cost of a restructuring of activities
- disposals of items of property, plant and equipment
- discontinued operations
- litigation settlements
- a reversal of a provision.

3.3 Analysis of expenses

Expenses should be analysed. Either of two methods of analysis may be used:

- according to the **nature** of expenses
- according to the **function** of the expense.

Entities should choose the method that provides the more relevant or reliable information.

3.4 Analysis of expenses by their nature

When expenses are analysed according to their nature, the categories of expenses will vary according to the nature of the business.

In a manufacturing business, expenses would probably be classified as:

- raw materials and consumables used

- staff costs ('employee benefits costs')
- depreciation.

Items of expense that on their own are immaterial are presented as 'other expenses'.

There will also be an adjustment for the increase or decrease in inventories of finished goods and work-in-progress during the period.

Other entities (non-manufacturing entities) may present other expenses that are material to their business.

An example of an income statement, showing expenses by their nature, is shown below, with illustrative figures included.

	\$m	\$m
Revenue		7,200
Other income		300
		7,500
Changes in inventories of finished goods and work-in-progress (reduction = expense, increase = negative expense)	90	
Raw materials and consumables used	1,200	
Staff costs (employee benefits expense)	2,000	
Depreciation and amortisation expense	1,000	
Other expenses	2,300	
Finance costs (interest cost)	60	
		6,650
Profit before tax		850
Income tax expense		250
		600
Profit for the period		600

3.5 Analysis of expenses by their function

When expenses are analysed according to their function, the functions are commonly 'cost of sales', 'distribution costs', 'administrative expenses' and 'other expenses'. This method of analysis is also called the 'cost of sales method'.

In practice, most entities use this method.

An example of an income statement, showing expenses by function (cost of sales, distribution costs, administrative expenses) is as follows.

ABCD Entity
Income statement for the year ended 31 December 20XX

	\$m
Revenue	7,200
Cost of sales	(2,700)
Gross profit	4,500
Other income	300
Distribution costs	(2,100)
Administrative expenses	(1,400)
Other expenses	(390)
Finance costs	(60)
Profit before tax	850
Income tax expense	(250)
Profit for the period	600

This method of presentation has some disadvantages:

- The classification of expenses as cost of sales, distribution costs or administrative expenses is often based on the judgement of management. This is because management decide how to allocate costs to each function, and how to share joint costs between two or more functions.
- This method of analysis does not show the amount of some important expenses.

IAS1 therefore requires that if the analysis by function method is used, additional information about expenses must be included in the notes to the accounts, showing:

- depreciation and amortisation expense, and
- employee benefits expense (staff costs).



Exercise 1

The following is an extract from the accounts of Entity Red for the year to 30 June 20X5, after the year-end adjustments had been made:

	Debit	Credit
	\$000	\$000
Cost of sales	6,214	
Distribution costs	3,693	
Revenue		14,823
Other expenses	248	
Administrative expenses	3,901	
Other income		22

Required

Show the first part of an income statement of the entity using the 'cost of sales' analysis method.



Exercise 2

The following is an alternative method of presenting the accounts of Entity Red.

	\$000
Increase in inventories of finished goods and work-in-progress	86
Revenue	14,823
Raw materials and consumables	5,565
Depreciation	1,533
Other income	22
Staff costs	4,926
Other operating expenses	2,118

Required

Show an income statement of the entity using the 'nature of expenditure' method, down to the operating profit level.



Example: statement of comprehensive income of an individual entity

IAS1 does not specify what the exact format of the statement of comprehensive income should be, but the example below is based on a suggested presentation included in the Guidance to implementing IAS1. In this example, expenses are classified by function. Illustrative figures are included.

XYZ Entity

Statement of comprehensive income for the year ended 31 December 20XX

	\$000
Revenue	678
Cost of sales	250
Gross profit	428
Other income	12
Distribution costs	(98)
Administrative expenses	(111)
Other expenses	(18)
Finance costs	(24)
Share of profit of associate	32
Profit before tax	271
Taxation	(50)
Profit for the year from continuing operations	221
Loss for the year from discontinued operations	(15)
PROFIT FOR THE YEAR	206
Other comprehensive income	
Gains on property revaluation	24
Share of other comprehensive income of associate	5
Available for sale financial assets	17
Other comprehensive income for the year (net of tax)	46
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	252

3.7 Preparing a statement of financial position or statement of comprehensive income

If you are required in your examination to prepare a statement of financial position, a statement of comprehensive income or an income statement in a format suitable for publication in accordance with IAS1, you need to know the appropriate format.

If you are preparing an income statement in the 'cost of sales' or 'expenses by function' method, you might need to separate total costs for items such as employee benefits costs and depreciation charges into cost of sales, distribution costs and administrative charges. The basis for separating these costs between the functions would be given in the question.

It might be useful to construct a workings table for analysing the functional costs. For example:

	Total cost	Cost of sales	Distribution costs	Administrative expenses
	\$	\$	\$	\$
Staff costs				
Depreciation				
Raw materials				
Other costs				

Statement of changes in equity (SOCIE)

- The contents of a statement of changes in equity
- Retrospective adjustments

4 Statement of changes in equity (SOCIE)

4.1 The contents of a statement of changes in equity

A set of financial statements must include a statement of changes in equity (SOCIE).

For each component of equity, a SOCIE shows the amount at the beginning of the period for that component of equity, changes during the period, and its amount at the end of the period.

Components of equity include:

- share capital
- share premium
- retained earnings
- revaluation reserve.

In a SOCIE for a group of companies, the amounts attributable to owners of the parent entity and the amounts attributable to the minority interest (non-controlling interest) should be shown separately.

For each component of equity, the **SOCIE should show changes resulting from:**

- profit or loss for the period
- each item of other comprehensive income (e.g. a property revaluation)
- 'transactions with owners in their capacity as owners'.

Transactions with owners in their capacity as owners include:

- new issues of shares
- payments of dividends
- repurchases and cancellation of its own shares by the company.

4.2 Retrospective adjustments

IAS8 requires that when an entity introduces a change of accounting policy or re-states amounts in the financial statements to correct errors, the adjustments should be made retrospectively (to the extent that this is practicable).

Retrospective adjustments result in changes in the reported amount of an equity component, usually retained earnings. Retrospective adjustments and re-statements

are not changes in equity, but they are adjustments to the opening balance of retained earnings (or other component of equity).

Where retrospective adjustments are made, the SOCIE must show for each component of equity (usually retained earnings) the effect of the retrospective adjustment. This is shown first, as an adjustment to the opening balance, before the changes in equity are reported.



Example: statement of changes in equity

An example of a statement of changes in equity for a single entity is shown below.

PQR Entity

Statement of changes in equity for the year ended 31 December 20X9

	Share capital	Share premium	Revaluation reserve	Retained earnings	Total
	\$000	\$000	\$000	\$000	\$000
Balance at 31 December 20X8	200	70	80	510	860
Change in accounting policy	-	-	-	(60)	(60)
Re-stated balance	<u>200</u>	<u>70</u>	<u>80</u>	<u>450</u>	<u>800</u>
Changes in equity for 20X9					
Issue of share capital	80	100			180
Dividend payments				(90)	(90)
Profit for the year				155	155
Other comprehensive income for the year			12		12
Balance at 31 December 20X9	<u>280</u>	<u>170</u>	<u>92</u>	<u>515</u>	<u>1,057</u>

Notes

The SOCIE shows the changes during the year for each component of equity, having first made a retrospective adjustment for the effects of a change in accounting policy.

Changes in each component of equity are shown, with separate disclosure of changes resulting from profit or loss, other comprehensive income, and 'transactions with owners in their capacity as owners' – new share issues and dividend payments are shown here.

The SOCIE therefore reconciles, for each component of equity, the balance at the beginning and end of the period.

Reporting financial performance

Contents

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IAS8: Accounting policies, changes in accounting estimates and errors

- Changes in accounting policies
- Retrospective application of a change in accounting policy
- Disclosure of a change in accounting policy
- Accounting estimates
- Changes in accounting estimates
- Errors
- The correction of prior period errors
- Disclosure of prior period errors

1 IAS8: Accounting policies, changes in accounting estimates and errors

IAS8 **Accounting policies, changes in accounting estimates and errors** deals with several different issues in financial reporting:

- selecting and applying accounting policies (dealt with in an earlier chapter)
- accounting for changes in accounting policies
- changes in accounting estimates
- corrections of errors in a prior accounting period.

Much of IAS8 is therefore concerned with how changes or corrections should be reported in the financial statements.

1.1 Changes in accounting policies

Users of financial statements need to be able to compare financial statements of an entity over time, so that they can identify trends in its financial performance or financial position. Frequent changes in accounting policies are therefore undesirable because they make comparisons with previous periods more difficult. IAS8 therefore states that a change in accounting policy is permitted only in the following circumstances:

- When a change in accounting policy is required by an IFRS or revised IAS (or an Interpretation of an IFRS), or
- If a change in accounting policy results in the financial statements providing reliable and more relevant financial information.

When a change in accounting policy is required by a new Standard, the Standard will often include specific '**transitional provisions**'. These explain how the change should be introduced.

In the absence of specific transitional provisions, a change in policy should be applied **retrospectively**.

Determining when there is a change in accounting policy

How should an entity decide whether it would be introducing a change in accounting policy, if it decided to account for a particular type of transaction in a particular way?

IAS8 specifies that when a new accounting policy is applied for transactions or events that did not occur previously, in earlier financial periods, this is **not** a change of accounting policy; it would simply be the application of a suitable accounting policy to a new type of transaction.

A change in accounting policy can be established as follows. The accounting policies chosen by an entity should reflect transactions and events through:

- recognition (e.g. capitalising or writing off certain types of expenditure)
- measurement (e.g. measuring non-current assets at cost or valuation)
- presentation (e.g. classification of costs as cost of sales or administrative expenses)

If at least one of these criteria is changed, then there is a change in accounting policy.



Example

A company has previously written off borrowing costs as incurred in the income statement. It is now proposed that any relevant finance costs should be capitalised as allowed by IAS 23.

This affects:

- recognition – the interest cost is now recognised as an asset rather than an expense
- presentation – the interest cost is now presented in the statement of financial position rather than the statement of comprehensive income.

In this example, there has been no change to the measurement of the finance costs but this is still a change in accounting policy due to a change in recognition and presentation.

1.2 Retrospective application of a change in accounting policy

When a change in accounting policy is required, and there are no transitional provisions relating to the introduction of a new accounting standard, the change in policy should be applied retrospectively.

The entity should adjust the opening balance for each item of equity affected by the change, for the earliest prior period presented, and the other comparative amounts for each prior period, as if the new accounting policy had always been applied. For example, suppose that a change in accounting policy is required from Year 3 onwards, and the earliest prior period presented in the Year 3 financial statements is Year 2, for which comparative prior year figures are presented. The change in accounting policy

should be applied retrospectively, which means that the change should be applied to the opening balances at the start of Year 2 (in the comparative prior period information), as if the new policy had always been applied.

Similarly, any other comparative amounts in previous periods should be adjusted as if the new accounting policy had always been applied.

If this is impracticable, retrospective application should be applied from the earliest date that is practicable.

1.3 Disclosure of a change in accounting policy

When an entity makes a change in an accounting policy, a note to the financial statements should disclose the following information about the change:

If the change is due to a new Standard or a new Interpretation	If the change in policy is voluntary
<ul style="list-style-type: none"> ■ The title of the Standard or Interpretation ■ The nature of the change in accounting policy ■ A description of any transitional provisions ■ For the current and previous period(s), to the extent practicable, the amount of the adjustment to each item in the financial statements and the adjustment to the basic and fully diluted earnings per share ■ To the extent practicable, the adjustment relating to accounting periods before those presented in the financial statements ■ If retrospective application is impracticable, an explanation of how the accounting policy change has been applied 	<ul style="list-style-type: none"> ■ The nature of the change in accounting policy ■ The reason why the new accounting policy provides reliable and more relevant information ■ For the current and previous period(s), to the extent practicable, the amount of the adjustment to each item in the financial statements and the adjustment to the basic and fully diluted earnings per share ■ To the extent practicable, the adjustment relating to accounting periods before those presented in the financial statements ■ If retrospective application is impracticable, an explanation of how the accounting policy change has been applied

1.4 Accounting estimates

An accounting estimate is made for an item in the financial statements when the item cannot be measured with precision, and there is some uncertainty about it. An estimate is therefore based, to some extent, on management's judgement. Management estimates might be required, for example, for the following items:

- bad debts
- inventory obsolescence

- the fair value of financial assets or liabilities
- the useful lives of non-current assets
- the most appropriate depreciation pattern (depreciation method) for a category of non-current assets
- warranty obligations.

It is important to distinguish between an accounting policy and an accounting estimate.

As an example a company may have an accounting policy to depreciate plant and equipment over its useful life. However whether the company uses the straight line method of depreciation or the reducing balance method will be a choice of accounting estimate.

IAS 8 requires a change in an accounting policy to be accounted for retrospectively whereas **a change in an accounting estimate is normally recognised in the current period** (and there is no requirement for retrospective application).

1.5 Changes in accounting estimates

A change in accounting estimate may be needed if changes occur in the circumstances on which the estimate was based, or if new information becomes available. A change in estimate is **not** the result of discovering an error in the way an item has been accounted for in the past and it is **not** a correction of an error.

The effect of a change in accounting estimate should be recognised prospectively, by including it:

- in profit or loss for the period in which the change is made, if the change affects that period only, or
- in profit or loss for the period of change and future periods, if the change affects both.

Prospective application of a change in estimate

A **change in accounting estimate is not applied retrospectively**. There is prospective application of the change. This means that the effect of the change is recognised in the current period and the future periods affected by the change.

To the extent that a change in estimate results in a change in assets and liabilities, it should be recognised by adjusting the carrying amount of the affected assets or liabilities in the period of change.



Example

A non-current asset was purchased for \$200,000 two years ago, when its expected economic life was ten years and its expected residual value was \$0. The asset is being depreciated by the straight-line method.

A review of the non-current assets at the end of year 2 revealed that due to technological change, the useful life of the asset is only six years in total, and the asset therefore has a remaining useful life of four years.

The original depreciation charge was \$20,000 per year ($\$200,000/10$ years) and at the beginning of Year 2, its carrying value was \$180,000 ($\$200,000 - \$20,000$).

The change in the estimate occurs in Year 2. The change in estimate should be applied prospectively, for years 2 onwards (years 2 – 6). From the beginning of year 2, the asset has a revised useful remaining life of five years.

The annual charge for depreciation for year 2 (the current year) and for the future years 3 – 6 will be changed from \$20,000 to \$36,000 ($= \$180,000/5$ years).



Example

The carrying value of an item of inventory is \$7,000. The inventory is no longer used due to a change in materials specifications for the products that used to contain the inventory item. The inventory has no scrap value and is now considered worthless.

A change in accounting estimate should reduce the value of the inventory to zero. The change affects the current year only, and the write-off of \$7,000 should be treated as an expense for the year.

1.6 Errors

Errors might happen in preparing financial statements. If they are discovered quickly, they are corrected before the finalised financial statements are published. When this happens, the correction of the error is of no significance for the purpose of financial reporting.

A problem arises, however, when an error is discovered that relates to a prior accounting period. For example, in preparing the financial statements for Year 3, an error may be discovered affecting the financial statements for Year 2, or even Year 1.

Errors might be:

- the effect of a mathematical mistake
- a mistake in applying an accounting policy
- an oversight
- a misinterpretation of facts
- caused by fraud.

Prior period errors are defined in IAS8 as: '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.'

1.7 The correction of prior period errors

IAS8 states that all material prior period errors should be **corrected retrospectively** in the first set of financial statements following the discovery of the error.

Comparative amounts for the previous period should be re-stated at their corrected amount.

If the error occurred before the previous year, the opening balances of assets, liabilities and equity for the previous period should be re-stated at their corrected amount.

The correction of a prior period error is excluded from profit or loss in the period when the error was discovered.

For example, suppose that an entity preparing its financial statements for Year 3 discovers an error affecting the Year 2 financial statements. The error should be corrected in the Year 3 financial statements by re-stating the comparative figures for Year 2 at their correct amount. If the error had occurred in Year 1, the comparative opening balances for the beginning of Year 2 should be re-stated at their correct amount. The reported profit for Year 3 is not affected.



Example

DEF is preparing its financial statements for Year 3. The draft profit for Year 3 is \$547,000 before tax. During Year 3 DEF:

- paid dividends of \$100,000
- revalued a non-current asset, creating a revaluation reserve of \$40,000
- raised \$300,000 by issuing new shares (\$200,000 nominal value and \$100,000 share premium).

At the end of Year 2 owners' equity totalled \$890,000, consisting of share capital of \$500,000, share premium \$50,000, revaluation reserve \$100,000 and retained earnings of \$240,000.

(At the end of Year 1, owners' equity totalled \$740,000; retained profits for the year were \$150,000 and there were no dividend payments, no share issues and no non-current asset revaluations during Year 1.)

DEF has now discovered an error in its inventory valuation. This has resulted in an overstatement of inventory at 31 December Year 3 of \$67,000 and at 31 December Year 2 of \$60,000.

The rate of tax on profits was 30% in both Year 2 and Year 3.

The error in Year 2 should be corrected retrospectively, as follows.

Retrospective correction of the statement of comprehensive income

The error in the valuation of opening and closing inventory in Year 3 is corrected before the publication of the Year 3 financial statements. As a result of this correction, the draft profit for Year 3 before tax will be $\$547,000 - \$67,000 + \$60,000 = \$540,000$. After deducting tax at 30%, the profit is $\$378,000$.

The comparative figures for Year 2 should also be changed, and because closing inventory at the end of Year 2 was overstated by $\$60,000$, the profit before tax in Year 2 was actually $\$60,000$ lower. Profit after tax at 30% would therefore be $\$42,000$ lower (and the tax liability $\$18,000$ lower).

In the statement of comprehensive income for Year 3, the comparative figures for Year 2 should therefore be re-stated to show cost of sales higher by $\$60,000$, gross profit lower by $\$60,000$, taxation lower by $\$18,000$ and profit after tax lower by $\$42,000$.

Statement of changes in equity

The reduction in profit in Year 2 affects some of the opening balances in the statement of financial position in Year 3. The tax liability will be $\$18,000$ lower and retained profits will be $\$42,000$ lower. Restating the opening balance for the current year the opening shareholders' funds will now be $\$848,000$ ($\$890,000 - \$42,000$).

The statement of changes in equity for the year would be shown as follows:

	Share capital	Share premium	Revaluation reserve	Retained earnings	Total
	\$000	\$000	\$000	\$000	\$000
Balance at 31 December Year 1	500	50	100	90	740
Profit for the year ended 31 December Year 1, as re-stated	-	-	-	108	108
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Balance at 31 December Year 2	500	50	100	198	848
Year 3					
Dividends				(100)	(100)
Issue of shares	200	100			300
Profit for the year				378	378
Gain on property revaluation			40		40
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Balance at 31 December Year 3	700	150	140	476	1,466

In this statement, the retained profit for the year has been re-stated as $\$108,000$, to correct the error in Year 2, and the opening balance of retained profits is also re-stated. There is no re-statement in Year 3 because the error was corrected before the final financial statements were published.

1.8 Disclosure of prior period errors

IAS8 requires the following disclosures for material prior period errors:

- the nature of the prior period error
- for each period presented in the financial statements, and to the extent practicable, the amount of the correction for each financial statement item and the change to basic and fully diluted earnings per share
- the amount of the correction at the beginning of the earliest prior period in the statements (typically, at the start of the previous year)
- if retrospective re-statement is not practicable for a prior period, an explanation of how and when the error has been corrected.

IAS8 therefore requires that a note to the financial statements should disclose details of the prior year error, and the effect that the correction has had on 'line items' in the Year 2 figures. In the previous example, the effect of the error should be disclosed in a note to the financial statements as:

	Effect on Year 2
	\$
(Increase) in cost of goods sold	(60,000)
Decrease in tax	<u>18,000</u>
(Decrease) in profit	<u>(42,000)</u>
(Decrease) in closing inventory	(60,000)
Decrease in tax payable	<u>18,000</u>
(Decrease) in equity	<u>(42,000)</u>

Reporting financial performance

- What is financial performance?
- IFRSs and financial performance

2 Reporting financial performance

2.1 What is financial performance?

One of the purposes of financial statements is to provide users with relevant and reliable information about an entity's financial performance. But what should be included in financial performance?

One possible view is that an entity's financial performance is its normal, recurring earnings. This is its profit or loss for the period, excluding any unusual items that are not expected to recur in future.

Another possible view is that an entity's financial performance is its **comprehensive income**. This is the difference between closing equity and opening equity after adjusting for transactions with equity owners (shareholders). Therefore an entity's financial performance includes all the gains and losses that occur during the period:

- Normal, recurring income and expenses
- Unusual gains and losses that are included in profit and loss and are not expected to occur regularly (for example, profits and losses on the sale of non-current assets; costs of a major restructuring)
- Gains and losses that are not included in profit and loss (for example, gains on the revaluation of assets).

The IASB (and most other major standard setters) have adopted this second view of performance. This is reflected in the '**accounting equation' approach** (which has also been called the **balance sheet approach**) of the IASB Framework: income and expenses (gains and losses) are recognised as a result of changes in assets and liabilities.

2.2 IFRSs and financial performance

The structure of the main financial statements was covered in an earlier chapter. IAS1: **Presentation of financial statements** sets out the items that should be included and disclosed in the statement of financial position statement of comprehensive income and statement of changes in equity.

Users of the financial statements need information about the various components of an entity's financial performance. There are several ways in which IASs and IFRSs ensure that this information is provided:

- Disclosure of material items included in the income statement (IAS 1)

- Presentation of a statement of changes in equity (SOCIE) (IAS 1)
- Disclosure of information about discontinued operations (IFRS 5). IFRS 5 is covered in the next section.

Material items

Material items of income or expense should be disclosed separately, showing both their nature and the amount. Circumstances that would give rise to a separate disclosure of material items include:

- a write-down of inventories to net realisable value
- a write-down of property, plant and equipment to its recoverable amount
- a reversal of such write-downs
- the cost of restructuring
- disposals of items of property, plant and equipment
- disposals of investments
- discontinued operations
- the income or expense of settlement of litigation
- a reduction in (reversal of) a provision.

As well as being material, most of these items are relatively unusual and may not occur every year. Users need to be made aware that these items are included in profit and loss because they may distort the overall result for the period. For example, if an entity has sold several properties at a profit, its profit for the current period may be exceptionally high, but will fall to a more normal level in the following period.

Material items are normally disclosed in the notes, but they may be disclosed as a separate line item on the face of the statement of comprehensive income (or income statement if this is presented separately), if they are sufficiently material or unusual to justify this treatment.

The statement of changes in equity

The statement of changes in equity brings together all of the income and expenses (gains and losses) for the period. This includes those that have passed through the income statement and are therefore part of the profit for the period. It also includes gains or losses that have been taken directly to reserves (equity) such as revaluation gains or losses on non-current assets or investments.

The statement of changes in equity is a reconciliation of the change in net assets for the period and enables users to appreciate and assess all the different aspects of the entity's performance for the period.

IFRS5: non-current assets held for sale and discontinued operations

- The need for an accounting standard on discontinued operations
- Definition of discontinued operations
- The measurement of non-current assets and disposal groups held for sale
- Presentation and disclosure

3 IFRS5: Non-current assets held for sale and discontinued operations

3.1 The need for an accounting standard on discontinued operations

IFRS5 **Non-current assets held for sale and discontinued operations** sets out requirements for disclosure of financial information relating to discontinued operations and non-current assets that will soon be sold off.

The reason for requiring disclosure of information about discontinued operations is as follows:

- Closing down some operations will affect the future financial prospects of the entity.
- It is therefore appropriate that users of the financial statements should be provided with relevant information about the discontinuation. This will help them to make a more reliable prediction of the future performance of the entity.

This information can be produced by providing information about discontinued operations separately from information about continuing operations.

3.2 Definition of discontinued operations

IFRS5 defines a discontinued operation as a component of an entity that either:

- has been disposed of in the period, or
- is classified as 'held for sale' (it has not yet been disposed of, but disposal will occur 'soon').

A 'component' of an entity is defined as operations and cash flows that can be clearly distinguished, operationally and for financial reporting purposes, from the rest of the entity. The component of the entity must:

- represent a separate major line of business or a significant geographical area of operations, or
- be a part of a single and co-ordinated plan to dispose of a separate major line of business or a significant geographical area of operations, or
- be a subsidiary company acquired exclusively with a view to re-sale.

If an entity disposes of an individual non-current asset, or plans to dispose of an individual asset in the immediate future, this is **not** classified as a discontinued operation **unless** the asset meets the definition of a 'component of an entity'. The asset disposal should simply be accounted for in the 'normal' way, with the gain or loss on disposal included in the operating profit for the year.

Non-current assets held for sale

Non-current assets 'held for sale' can be either:

- specific non-current assets, or
- a 'disposal group'. A disposal group is a group of cash-generating assets (and perhaps some liabilities) that will be disposed of in a single transaction.

A disposal group might be, for example, a major business division of a company. For example accompany that operates in both shipbuilding and travel and tourism might decide to put its shipbuilding division up for sale. If the circumstances meet the definition of 'held for sale' in IFRS5, the shipbuilding division would be a disposal group held for sale.

A non-current asset (or a disposal group) should be classified as held for sale if its carrying amount will be recovered mainly through a sale transaction rather than through continuing use. For this to be the case:

- the non-current asset or disposal group should be available for immediate sale, in its present condition under terms that are usual and customary; and
- its sale should be **highly probable**.

For the sale to be highly probable:

- management must be committed to the sale
- an active programme to locate a buyer must have been initiated
- the asset or disposal group must be actively marketed for sale at a price that is reasonable in relation to its current fair value
- the sale should be expected to take place within one year from the date of classification as 'held for sale'
- significant changes to the plan or the withdrawal of the plan should be unlikely.

An operation cannot be classified as discontinued in the balance sheet if the criteria for classifying it as discontinued are not met until **after the end of the reporting period**. For example, suppose that an entity with a financial year ending 30 June shuts down a major line of business in July and puts another major line of business up for sale. It cannot classify these as discontinued operations in the financial statements of the year just ended in June, even though the financial statements for this year have not yet been approved and issued.

An asset that has been **abandoned** cannot be classified as 'held for sale'.



Example

Entity R had the following assets at 31 March Year 4. Both assets would meet the definition of 'component' of Entity R, as defined by IFRS5.

- (1) A property that it offered for sale for \$5 million during June Year 3. The market for this type of property has deteriorated and at 31 March Year 4 a buyer had not yet been found. Management does not wish to reduce the price because it hopes that the market will improve. Shortly after the year end (after 31 March Year 4) the entity received an offer of \$4 million and the property was eventually sold for \$3.5 million during May Year 4, before the financial statements were authorised for issue.
- (2) Plant with a carrying value of \$2.5 million. At 31 March Year 4 the entity had ceased to use the plant but was still maintaining it in working condition so that it could still be used if needed. Entity R sold the plant on 14 May Year 4.

Can either of these assets be classified as 'held for sale' in the financial statements for the year ended 31 March Year 4?



Answer

(1) Property

A non-current asset qualifies as 'held for sale' if it is available for immediate sale in its present condition and actively marketed for sale at a price that is reasonable in relation to its current fair value. The property had not been sold at the year end although it had been on the market for some time. It appears that the reason for this was that management were asking too high a price; therefore the price is not reasonable in relation to its current fair value.

Therefore the property cannot be classified as 'held for sale'.

(2) Plant

At the year-end management had not made a firm commitment to sell the plant. Even though the plant was sold just after the year-end, IFRS 5 prohibits the classification of non-current assets as 'held for sale' if the criteria are met after the end of the reporting period and before the financial statements are signed.

Therefore the plant cannot be classified as 'held for sale'.

3.3 The measurement of non-current assets and disposal groups held for sale

Assets held for sale and disposal groups should be valued **at the lower of:**

- their carrying amount (i.e. current values in the statement of financial position, as established in accordance with accounting standards and principles), and
- fair value minus costs to sell.

If the value of the 'held for sale' asset is adjusted from carrying amount to fair value minus costs to sell, any impairment should be recognised as a loss in the income statement (statement of comprehensive income) for the period.

A non-current asset **must not be depreciated** (or amortised) while it is classified as 'held for sale' or while it is part of a disposal group that is held for sale.

3.4 Presentation and disclosure

IFRS5 states: 'An entity shall present and disclose information that enables users of the financial statements to evaluate the financial effects of discontinued operations and disposals of non-current assets (or disposal groups)'.

Disclosure in the statement of financial position

Non-current assets classified as held for sale must be disclosed separately from other assets in the statement of financial position.

Similarly, assets and liabilities that are part of a **disposal group held for sale** must be disclosed separately from other assets and liabilities in the statement of financial position. (The assets and liabilities in a disposal group should **not** be offset and presented as a single net amount).

Income statement disclosure

Information about discontinued operations (both operations already discontinued and those classified as held for sale) must be presented in the statement of comprehensive income or in a note to the financial statements.

There must be a **single amount on the face of the statement of comprehensive income (or income statement)** for the total of:

- the after-tax profit or loss for the period from the discontinued operations, and
- the after-tax gain or loss on disposal (based on the fair value minus costs to sell of the asset or disposal group).

On the face of the statement of comprehensive income (or income statement) or in a note to the accounts, this total amount should be analysed into:

- the revenue, expenses and pre-tax profit for the period from the discontinued operations
- the related tax charge
- the pre-tax gain or loss on disposal
- the related tax on the disposal.

If this analysis is shown on the face of the statement of comprehensive income (or income statement), it should be presented in a separate section relating to discontinued operations, separately from continuing operations.

For **comparative purposes**, the figures for the previous year should be re-presented, so that disclosures relating to discontinued operations in the prior period relate to all discontinued operations up to the end of the current year.

Note on discontinued operations and the statement of cash flows

The statement of cash flows is covered in a later chapter. However, IFRS5 states that in the **statement of cash flows**, there should be separate disclosure of the net cash flows in the period attributable to operating activities, investing activities and financing activities of the discontinued operations.

These disclosures may be presented either on the face of the statement of cash flows or in the notes to the financial statements.

Additional disclosures

Additional disclosures about discontinued operations must be included in the notes to the financial statements. These include:

- a description of the non-current asset or disposal group
- a description of the facts and circumstances of the sale
- in the case of operations and non-current assets 'held for sale', a description of the facts and circumstances leading to the expected disposal and the expected manner and timing of the disposal.



Example

Information relating to discontinued operations might be presented as follows.

Income statement

ABCD Entity

Income statement for the year ended 31 December 20X9

	20X9	20X8
	\$000	\$000
Continuing operations		
Revenue	9,000	8,500
Cost of sales	<u>(5,100)</u>	<u>(4,700)</u>
Gross profit	3,900	3,800
Other income	50	100
Distribution costs	(1,200)	(1,000)
Administrative expenses	(1,400)	(1,200)
Other expenses	(150)	(200)
Finance costs	<u>(300)</u>	<u>(300)</u>
Profit before tax	900	1,200
Income tax expense	<u>(300)</u>	<u>(400)</u>
Profit for the period from continuing operations	600	800

Discontinued operations

Profit for the period from discontinued operations	250	180
	<u> </u>	<u> </u>
Profit for the period	850	980
	<u> </u>	<u> </u>

Note

The single figure of \$250,000 for after-tax profit or loss from discontinued operations should be analysed in a note to the accounts. Alternatively, the analysis could be given on the face of the income statement.

Statement of financial position

An entity has two disposal groups held for sale:

	Disposal group	
	Group 1	Group 2
	\$000	\$000
Property, plant and equipment	600	300
Liabilities	<u>(50)</u>	<u>(20)</u>
Net carrying amount	<u>550</u>	<u>280</u>

An amount of \$50,000 relating to the assets of disposal group 1 has been recognised directly in equity, as a result of an asset revaluation.

The summarised statement of financial position of the entity might be as follows:

	\$000
Assets	
Non-current assets	
Property, plant and machinery	2,000
Current assets	
Inventory	300
Receivables	400
Cash	<u>20</u>
	2,720
Non-current assets classified as held for sale	<u>900</u>
Total assets	<u>3,620</u>
Equity and liabilities	
Share capital	1,000
Reserves	1,900
Amounts recognised directly in equity relating to non-current assets held for sale	<u>50</u>
Total equity	<u>2,950</u>
Non-current liabilities: loan	<u>400</u>

Current liabilities	
Trade payables	200
Liabilities directly associated with non-current assets classified as held for sale	<u>70</u>
	<u>270</u>
Total liabilities	<u>670</u>
Total equity and liabilities	<u>3,620</u>

In the statement of financial position, the comparative figures for the previous year are not re-presented. The amount for discontinued operations in the previous year does not include discontinued items for the current year. The presentation in the statement of financial position therefore differs from the presentation in the statement of comprehensive income (or income statement).

Note: In this summarised statement of financial position, the non-current assets classified as 'held for sale' are the sum of the non-current assets of disposal groups 1 and 2 (= \$600,000 + \$300,000). Similarly the 'liabilities directly associated with non-current assets classified as held for sale' are the sum of the liabilities for disposal groups 1 and 2.

Tangible non-current assets

Contents	
1	Recognising and measuring non-current assets
2	Depreciating non-current assets
3	De-recognition of non-current assets
4	Disclosure requirements of IAS16 and IAS23
5	Government grants: IAS20
6	Investment property: IAS40

Recognising and measuring non-current assets

- Introduction
- Recognising non-current assets
- Measuring non-current assets: the cost model
- Subsequent expenditure
- Capitalisation of borrowing costs: IAS23
- Measuring non-current assets: the revaluation model

1 Recognising and measuring non-current assets

1.1 Introduction

The main accounting standard relating to the recognition and measurement of tangible non-current assets is IAS16 **Property, plant and equipment**. However, the following accounting standards are also relevant.

- IAS20: Accounting for government grants and disclosure of government assistance
- IAS23: Borrowing costs
- IAS36: Impairment of assets (explained in a later chapter)
- IAS40: Investment property.

1.2 Recognising non-current assets

IAS16 states that an item of property, plant and equipment should be recognised as an asset only when:

- it is probable that future economic benefits associated with the item will flow to the entity, and
- the cost of the item can be measured reliably.

For a machine, the future economic benefits are the future revenues that will arise from the use of the machine in production. The machine will be used to make items that are held in inventory as finished goods. When those inventories are sold, the entity will receive economic benefits in the form of cash. It is therefore probable, as soon as the asset is acquired, that future economic benefits will be obtained. The cost of the asset can usually be measured reliably when it is acquired; therefore non-current assets are normally recognised when they are acquired (purchased).

The same principle applies to non-current assets that are constructed by the entity itself. When an entity constructs a long-term asset, it does so in the expectation that future economic benefits will be obtained from use of the asset, and the cost can be measured as its cost of construction.

These '**recognition criteria**' should be applied to expenditure on property, plant and equipment as the expenditure is incurred. Expenditure on property, plant and equipment might be:

- initial expenditure (when the asset is first acquired), or
- subsequent expenditure to add to the asset, or replace parts of the asset.

1.3 Measuring non-current assets: the cost model

There are two models for the measurement (valuation) of non-current assets:

- the cost model
- the revaluation model.

A measurement model must be chosen for each class of non-current assets. It is an accounting policy choice. The chosen accounting policy for a class of assets should be applied consistently to all the assets in that class. For example, an entity may choose the revaluation model for all its land and buildings, and the cost model for all its plant and equipment.

Under the **cost model**, an item of property, plant and equipment is carried at its cost (initial cost plus subsequent expenditure) less accumulated depreciation and impairment losses.

Cost consists of:

- purchase price (less any trade discounts) plus import duties and any non-refundable purchase taxes, plus
- costs that are **directly attributable** to bringing the asset to its present location and condition, necessary for the asset to operate in the manner intended by management, plus
- the initial estimate of any dismantling and site restoration/decontamination costs. (This is an estimate that is made when the asset is initially acquired.)

In other words, when it is known when an asset is acquired that there will be costs to incur when the asset is eventually dismantled, an estimate of these future costs should be included in the cost of the asset from the time that it is first recognised.

Directly attributable costs might include:

- professional fees
- delivery costs
- site preparation costs
- assembly and testing costs.

Costs that should be capitalised and included in the cost of a non-current asset are referred to as **capital items**. Costs that should not be capitalised are referred to as **revenue items**.

**Example**

Entity H has incurred the following costs prior to bringing a machine into full production.

	\$
Purchase price before trade rebate and tax	12,200
Trade rebate	600
Refundable purchase taxes	1,200
Architects' fees	700
Installation costs	100
Operating losses prior to achieving planned performance	250

Required

Calculate the amount at which the machine should be stated in the accounting records of Entity H in accordance with IAS16.

**Answer**

The cost of the machine should be stated in the statement of financial position as:

	\$
Purchase price less trade rebate (12,200 – 600)	11,600
Architects' fees	700
Installation costs	100
Total cost	<u>12,400</u>

For self-constructed assets (non-current assets that are constructed by the entity itself):

- internal profits and abnormal costs should be excluded from cost
- administrative expenses and other similar overheads should also be excluded from cost
- interest costs incurred in the course of construction may be included, in accordance with IAS23 **Borrowing costs** (see below).

1.4 Subsequent expenditure

Subsequent expenditure relating to non-current assets, after their initial acquisition, should be capitalised if it meets the criteria for recognising an asset. In practice, this means that expenditure is capitalised if it:

- improves the asset (for example, by enhancing its performance or extending its useful life)
- is for a replacement part (provided that the part that it replaces is treated as an item that has been disposed of).

Repairs and maintenance expenditure is revenue expenditure. It is recognised as an expense as it is incurred, because no additional future economic benefits will arise from the expenditure.

Examples of subsequent expenditure on a building, for example, include:

- constructing an extension to the building
- replacing the elevators or the heating or air conditioning system.

1.5 Capitalisation of borrowing costs: IAS23

An entity may incur significant interest costs if it has to raise a loan to finance the purchase or construction of an asset.

- **IAS23 Borrowing costs** generally requires borrowing costs (interest costs) to be written off to profit and loss in the financial period in which they are incurred.
- However, borrowing costs must be capitalised as part of the cost of an asset when they are directly attributable to the acquisition or construction of a **qualifying asset**.

A qualifying asset is defined in IAS23 as 'an asset that necessarily takes a substantial period of time to get ready for its intended use or sale'.

Inventory is not a qualifying asset, because it is already in a condition for use or sale. Similarly, purchased non-current assets are usually not qualifying assets, because they should be ready for use as soon as or soon after they are purchased. Qualifying assets are likely to include assets that are constructed by the entity itself, where the construction takes a long time (and the cost of construction is financed by borrowing).

Borrowing costs in relation to a qualifying asset such as a building or major construction contract should therefore be capitalised and included in the cost of the asset, provided that the borrowing costs can be directly related to it.

- The cost of the asset will be more accurately stated by the inclusion of these costs.
- The borrowing costs will be more accurately matched to future revenues when they are depreciated as part of the cost of the asset.

The amount of borrowing costs capitalised will be the finance cost of:

- the funds borrowed to finance a specific asset, or
- when it is not possible to identify specific borrowed funds with a specific qualifying asset, a proportion of the funds borrowed by the entity for general use, using a weighted average cost of finance.

Capitalisation of borrowing costs should start only when:

- expenditures for the asset are being incurred
- borrowing costs are being incurred, and
- activities necessary to prepare the asset have started.

Capitalisation of borrowing costs should be suspended if development of the asset is suspended for an extended period of time.

Capitalisation of borrowing costs should cease when the asset is substantially complete. The costs that have already been capitalised remain as a part of the asset's cost, but no additional borrowing costs may be capitalised.

Under IAS8 **Accounting policies, changes in accounting estimates and errors**, if an entity chooses to capitalise borrowing costs then it should apply this policy consistently to all qualifying borrowing costs.

1.6 Measuring non-current assets: the revaluation model

Instead of measuring non-current assets using the cost model, an entity may choose to value them using the revaluation model. Under the **revaluation model**, an item of property, plant and equipment is 'carried' in the statement of financial position at:

- its revalued amount (its fair value)
- less accumulated depreciation charges and impairment losses (since the revaluation).

Fair value is normally open market value. If there is no reliable market value (for example, because the asset is specialised or because sales are rare), depreciated replacement cost can be used.

Valuation should normally be performed by a professionally qualified valuer.

If the revaluation model is adopted:

- assets must be revalued regularly so that their carrying values do not differ materially from their fair values
- once an asset is revalued, all assets within that class must also be revalued

IAS 16 does not prescribe a time interval between revaluations. However it states that revaluations should be made with 'sufficient regularity' to ensure that its carrying value in the statement of financial position is not materially different from its what its fair value would be.

Gains on revaluation

When an asset is revalued upwards from its carrying amount, there is a gain on revaluation:

- The gain on revaluation is included as other comprehensive income in the statement of comprehensive income and is not included in profit or loss for the period.
- There is an exception to this rule. If the gain on revaluation reverses a previous loss on revaluation, where the loss was recognised in profit or loss, the revaluation gain should be recognised in profit or loss, not 'other comprehensive income'.

When a gain on revaluation is recognised in other comprehensive income, it is a requirement of IAS1 and IAS12 that the tax associated with the revaluation should

also be included in other comprehensive income. For example, if there is a gain on revaluation of \$500,000 before tax, and the rate of tax is 30%, other comprehensive income will be \$500,000 less tax of \$150,000. There will be an increase of \$500,000 in the carrying value of the asset, and a matching increase of \$350,000 in the revaluation reserve for the asset and \$150,000 in tax liability (deferred tax).

Losses on revaluation

When an asset is revalued down from its carrying value there is a loss on revaluation.

- The amount of the reduction in valuation should be recognised in profit or loss (not in other comprehensive income).
- There is an exception to this rule. If the loss on revaluation reverses a previous gain on revaluation that was reported in other comprehensive income, the decrease should be reported in other comprehensive income and not recognised as a loss.



Example

Entity J has an asset in its statement of financial position at 31 December Year 1 as follows.

	\$
Cost	450,000
Accumulated depreciation	<u>(300,000)</u>
Carrying amount	<u>150,000</u>

On 31 December Year 1 the asset was revalued to its fair value of \$600,000.

Required

- (a) Set out the journal entry to record the revaluation, ignoring taxation.
- (b) Explain how the revaluation would be reported in the financial statements for the year to 31 December Year 1.
- (c) Explain how the accounting treatment of the revaluation would differ if \$200,000 of the revaluation is a reversal of a revaluation loss that was recognised as a loss in an earlier financial period.
- (d) Explain how the accounting treatment of the revaluation in (a) and (b) would differ allowing for tax at a rate of 30%.



Answer

- (a) **Ignoring taxation**

	Debit	Credit
	\$	\$
Cost/valuation (600,000 – 450,000)	150,000	
Accumulated depreciation	300,000	
Revaluation reserve (600,000 – 150,000)		450,000

- (b) As a result of this revaluation, the asset will be stated in the statement of financial position at a value of \$600,000, with no accumulated depreciation. There is an increase in the revaluation reserve of \$450,000. There will be \$450,000 in the revaluation reserve that relates to that asset.

In the statement of comprehensive income for the year to 31 December Year 1, 'other comprehensive income' should include the revaluation surplus of \$450,000.

- (c) If the revaluation of \$450,000 in part reverses a revaluation loss of \$200,000, then \$200,000 should be reported in profit for the period, and the balancing \$250,000 should be reported as other comprehensive income.
- (d) Allowing for tax at 30%, other comprehensive income should report the revaluation of \$450,000 less tax at 30% (\$135,000). The carrying amount of the asset is increased by \$450,000 to \$600,000 with no accumulated depreciation. There will be an increase in the revaluation reserve of \$315,000 (= \$450,000 less tax of \$135,000) and an increase in deferred tax of \$135,000. Deferred tax is explained in more detail in a later chapter.

	Debit	Credit
	\$	\$
Cost/valuation (600,000 – 450,000)	150,000	
Accumulated depreciation	300,000	
Revaluation reserve (600,000 – 150,000)		315,000
Deferred tax		135,000



Example

Entity J had an asset in its statement of financial position at 31 December Year 1 as follows.

	\$
Cost	450,000
Accumulated depreciation	(300,000)
Carrying amount	<u>150,000</u>

On 31 December Year 1 the asset was revalued to its fair value of \$600,000.

In Year 2, depreciation of \$60,000 was charged on the asset. On 31 December Year 2, the asset is revalued again and its fair value is now \$500,000.

Required

Set out the amounts to be taken to the revaluation reserve in respect of this asset on 1 January Year 3. Ignore taxation.



Answer

On 31 December Year 2, the carrying amount of the asset is now \$540,000 (= \$600,000 - \$60,000).

The asset is revalued to \$500,000; therefore the revaluation reserve will be reduced by \$40,000.

The journal entries to record the adjustments will be as follows:

	Dr	Cr
	\$	\$
Downward revaluation of asset (600,000 – 500,000)		100,000
Increase in accumulated depreciation	60,000	
Revaluation reserve: reduction	40,000	

The asset will now be valued at \$500,000, the accumulated depreciation will be \$0 again, and the revaluation reserve relating to the asset will be reduced from \$450,000 to \$410,000.

The reduction of \$40,000 in the revaluation reserve is reversing a gain that was previously recognised in Year 1 as 'other comprehensive income'. The reduction in value should therefore be recognised in 'other comprehensive income' (as 'negative' income) for Year 2.

Note: Allowing for taxation, the other comprehensive income for Year 2 would be a negative amount of \$40,000 offset by an amount for taxation. For example if tax is at the rate of 25%, other comprehensive income after tax would be \$40,000 less 25% = \$30,000. The revaluation reserve would be reduced by \$30,000 (not the \$40,000 shown above) and deferred tax would be reduced by \$10,000.

Calculating the gain or loss on revaluation

In an examination question, you might be given information that enables you to calculate the amount of a gain or loss on revaluation. You need to remember that if a revaluation is made at the end of a financial year, you should depreciate the asset up to the time that the revaluation occurs. In other words, if revaluation occurs at the year-end:

- calculate depreciation for the asset for the year and then
- calculate the revaluation gain as the difference between the new fair value of the asset and the carrying amount of the asset after deducting depreciation for the year.



Example

A company is preparing its financial statements for the year to 31 December.

A 25-year leasehold property had a carrying value of \$69 million at the beginning of the year, consisting of:

	\$m
At cost	75
Less: Accumulated depreciation as at 1 January	(6)
	69

At 31 December the leasehold property is revalued to \$70 million. The income tax rate is 25%.

How should the revaluation be accounted for in the year to 31 December?

a

Answer

	\$m
Carrying value of leasehold property at 1 January	69
Depreciation for the year (\$75 million/25 years)	(3)
Carrying value at 31 December	66
Revalued amount	<u>70</u>
Amount of revaluation of the asset	<u>4</u>

The leasehold property should be revalued to \$70 million in the statement of financial position, with no accumulated depreciation.

The revaluation of \$4 million before tax has an associated tax charge of \$1 million (= \$4 million × 25%).

Other comprehensive income in the statement of comprehensive income for the year will therefore show:

	\$m
Gain on asset revaluation	4
Less: Related tax	<u>(1)</u>
	<u>3</u>

The revaluation reserve should be increased by \$3 million and deferred tax by \$1 million. Depreciating non-current assets

- The objective of depreciation
- Depreciation methods
- A change in the method of measuring depreciation
- A change in the asset's useful life

2 Depreciating non-current assets

2.1 The objective of depreciation

IAS16 states that the objective of depreciation is to allocate the **depreciable amount** of an asset on a systematic basis over its useful life. The depreciable amount of a non-current asset is:

- its cost minus its expected residual value, where the cost model of valuation is used
- the amount substituted for cost, less its expected residual value, where the revaluation model is used.

The depreciation charge has the effect of spreading the cost/fair value of the asset over the financial periods that will benefit from its use.

The depreciation charge for the year (whether based on cost or revalued amount) is recognised in profit or loss in the statement of comprehensive income.

All tangible non-current assets must be depreciated. The only exception to this rule is land, which normally has an indefinite useful life (unless the land is used in mining or similar industries).

Each significant part of an item of property, plant and equipment must be depreciated separately. This allows for assets that have two or more major components with differing useful lives and where different depreciation methods may be appropriate.

For example:

- For an aircraft, the frame and engines may have different useful lives and therefore should be depreciated separately.
- Similarly, in a building, the external structure will be depreciated over a longer life than the elevators or heating and air conditioning equipment installed in the building. For example the structure of a building might be depreciated over a useful life of 50 years, whereas the elevators might be depreciated over 10 years and the heating system over 15 years.

2.2 Depreciation methods

Methods of depreciation that may be used include:

- the straight-line method
- the reducing balance method
- the units of production method.

The method chosen by an entity should:

- most closely reflect the wearing out of the asset, and
- be applied consistently.



Example

Entity K owns a machine which it purchased for \$4,400 on 1 January Year 1. The machine was estimated to have a residual value of \$1,400.

Required

Calculate the depreciation charge for Year 1 and Year 2 using:

- (a) the straight-line method (assuming that the machine has a useful life of four years)
- (b) the reducing balance method (using a rate of 25%)
- (c) the units of production method (on the basis that the machine has a capacity over its life of 100,000 units and in Year 1 has produced 28,000 units and in Year 2 has produced 26,000 units.

Show the carrying amount of the asset at the end of Year 1 and at the end of Year 2.



Answer

Year 1

Depreciable amount = \$4,400 – \$1,400 = \$3,000

Depreciation rate:

Straight-line method: $\$3,000 / 4 \text{ years} = \750 per year

Units of production method: $\$3,000 / 100,000 \text{ units} = \$0.03 \text{ per unit produced.}$

- (a) Straight line method: \$750
- (b) Reducing balance method: $\$4,400 \times 25\% = \$1,100$ (carrying value at end of Year 1 = \$3,300)
- (c) Units of production method: $28,000 \times \$0.03 = \840

Year 2

- (a) Straight line method: \$750

- (b) Reducing balance method: $\$3,300 \times 25\% = \825 (carrying value at end of Year 2 = $\$2,475$)
- (c) Units of production method: $26,000 \times \$0.03 = \780

	Straight-line method		Reducing balance method		Units of production method
Year 1	\$		\$		\$
Cost	4,400		4,400		4,400
Depreciation for Year 1	<u>(750)</u>	(4,400 × 25%)	<u>1,100</u>	(28,000 × 0.03)	<u>(840)</u>
Carrying amount, end of Year 1	3,650		3,300		3,560
Depreciation for Year 2	<u>(750)</u>	(3,300 × 25%)	<u>825</u>	(26,000 × 0.03)	<u>(780)</u>
Carrying amount, end of Year 2	<u>2,900</u>		<u>2,475</u>		<u>2,780</u>

2.3 A change in the method of measuring depreciation

IAS16 requires depreciation methods to be reviewed at least annually. It only allows a change in the method of measuring depreciation where this would give a presentation of the entity's financial results and financial position that is more fair.

Where there is a change in the depreciation method used, this is a **change in accounting estimate**. A change of accounting estimate is applied from the time of the change, and is not applied retrospectively. The carrying amount (cost minus accumulated depreciation) of the asset at the date of the change is written off over the remaining useful life of the asset.



Example

Entity L owns a machine which originally cost \$30,000 on 1 January Year 1. It has no residual value. It was being depreciated over its useful life of 10 years on a straight-line basis. At the end of Year 4, when preparing the financial statements for Year 4, Entity L decided to change the method of depreciation, from straight-line to the reducing balance method, using a rate of 25%.

Required

Calculate the depreciation charge for Year 4.



Answer

The change in accounting estimate is made at the end of Year 4, but is applied to the financial statements from 1 January Year 4. The reducing balance method of depreciation is applied to the Year 4 statements.

	\$
Cost on 1 January Year 1	30,000
Depreciation for Years 1 to 3 ($30,000 \times 3/10$)	<u>(9,000)</u>
Carrying amount at end of Year 3	<u>21,000</u>

Depreciation for Year 4 will therefore be $\$21,000 \times 25\% = \$5,250$.

2.4 A change in the asset's useful life

IAS16 requires **useful lives to be reviewed at each year-end**. Any change is a change in **accounting estimate**. The carrying amount (cost minus accumulated depreciation) of the asset at the date of change is written off over the (revised) remaining useful life of the asset.



Example

Entity M owns a machine which originally cost \$60,000 on 1 January Year 1. It has no residual value. It was being depreciated over its useful life of 10 years on a straight-line basis. On 31 December Year 4 Entity L revised the total useful life for the machine to eight years.

Required

Calculate the depreciation charge for Year 4 and subsequent years.



Answer

The change in accounting estimate is made at the end of Year 4 but may be applied to the financial statements from Year 4 onwards.

	\$
Cost on 1 January Year 1	60,000
Depreciation for Years 1 to 3 ($60,000 \times 3/10$)	<u>(18,000)</u>
Carrying amount at end of Year 3	<u>42,000</u>

Remaining useful life at the end of Year 3 = 8 – 3 years = 5 years.

Depreciation for Year 4 and subsequent years will be $\$42,000 \div 5 \text{ years} = \$8,400$.

De-recognition of non-current assets

- General rules on de-recognition
- Disposal of assets 'held for sale'

3 Derecognition of non-current assets

3.1 General rules on de-recognition

When an asset is de-recognised, its carrying amount is removed from the statement of financial position. IAS16 **Property, plant and equipment** states that the carrying amount of an item of property, plant and equipment should be **derecognised** in the following circumstances

- on disposal of the asset, or
- when no future economic benefits are expected to arise from its use or from its disposal.

If a non-current asset is disposed of, the gain or loss on the disposal should be included in profit or loss in the period in which the disposal occurs. The gain or loss should **not** be included in sales revenue.

The gain or loss on the disposal is calculated as:

	\$
Net disposal proceeds	X
Minus: Carrying amount	(X)
Gain/(loss) on disposal	X/(X)

3.2 Disposal of assets 'held for sale'

Special rules apply where an asset has been classified as 'held for sale' under IFRS5 **Non-current assets held for sale and discontinued operations**.

IFRS5 states that an asset **held for sale** should be measured at the lower of its:

- carrying value, and
- fair value minus the costs to sell.

This means that any loss is recognised at the time that the asset is classified as held for sale.

For example, suppose that an asset is reclassified as 'held for sale', when its carrying amount is \$20 million. If its fair value minus estimated costs to sell is \$17 million, the asset should be re-valued at \$17 million and a loss of \$3 million should be reported in the period.

Any gain is not recognised until the actual disposal. The gain is calculated according to the general rules described above. For example, suppose that an asset is reclassified as 'held for sale', when its carrying amount is \$20 million. If its fair value minus estimated costs to sell is \$24 million, the asset 'held for sale' should be valued at \$20 million. A gain on disposal will be included in profit for the period when the disposal actually occurs.

A loss could still arise under these general rules where the asset has fallen further in value between the time of its classification as held for sale and the time of its actual disposal.

A held for sale asset:

- is included within current assets in the statement of financial position, and
- is not depreciated.



Example

A machine was purchased on 1 January Year 1 for \$80,000. It had a useful life of 8 years and no residual value.

On 31 December Year 4 the machine was classified as held for sale. The machine was sold on 30 June Year 5.

Required

Calculate the entries in the statement of comprehensive income for Year 4 and Year 5 on the following bases.

- (a) Assuming that
- (1) on classification as held for sale the machine's fair value was estimated at \$50,000 and the costs to sell were estimated at \$1,000 and
 - (2) the machine was sold for \$48,000.
- (b) Assuming that
- (1) on classification as held for sale, the machine's fair value was estimated at \$41,000 and the costs to sell at \$2,000 and
 - (2) the machine was eventually sold for \$37,500.



Answer

Part (a)

End of Year 4:

The asset held for sale is valued at the lower of:

- carrying value = \$40,000 (= 80,000 × 4/8), and
- fair value minus costs to sell = \$49,000 (= 50,000 – 1,000)

The machine therefore remains at its carrying value of \$40,000.

Year 5:

On sale, the statement of comprehensive income will include (in profit and loss) a profit on disposal of \$8,000 (= \$48,000 – \$40,000).

Part (b)

End of Year 4:

The asset held for sale is valued at the lower of:

- carrying value = \$40,000 (= \$80,000 × 4/8)
- fair value minus costs to sell = \$39,000 (= \$41,000 – \$2,000).

The machine is therefore written down to \$39,000. The statement of comprehensive income for Year 4 will include an impairment loss of \$1,000 (= \$40,000 – \$39,000).

Year 5:

On sale there will be a further \$500 of loss on disposal of \$1,500 (= \$39,000 – \$37,500).

Disposal of assets held for sale and valued under the revaluation model

IFRS5 states that when an asset is valued under the revaluation model and reclassified as 'held for sale':

- Step (1) The asset must be revalued to its fair value immediately before classification as 'held for sale' (Step 1)
- Step (2) On classification as 'held for sale', the asset is revalued to fair value minus costs to sell (Step 2).

Step (1) is dealt with in the usual way for the revaluation model, and there will be a gain or loss on revaluation.

The effect of Step (2) is that the estimated costs to sell are treated as an impairment loss in the statement of comprehensive income, and the loss arises when the asset is classified as 'held for sale'.

Disclosure requirements of IAS16 and IAS23

- Disclosure requirements of IAS16
- Disclosure requirements of IAS23

4 Disclosure requirements of IAS16 and IAS23

4.1 Disclosure requirements of IAS16

IAS16 **Property, plant and equipment** requires the following disclosures in the notes to the financial statements, for each major class of property, plant and equipment.

- The measurement bases used (cost or revaluation model)
- The depreciation methods used
- The useful lives or depreciation rates used
- Gross carrying amounts and the accumulated depreciation at the beginning and at the end of the period
- A reconciliation between the opening and closing values for gross carrying amounts and accumulated depreciation, showing:
 - Additions during the year
 - Disposals during the year
 - Depreciation charge for the year
 - Assets classified as held for sale in accordance with IFRS5
 - Acquisitions of assets through business combinations
 - Impairment losses
 - The effect of revaluations.

The following is an example of how a simple table for tangible non-current assets may be presented in a note to the financial statements.

	Property	Plant and machinery	Total
	\$m	\$m	\$m
Cost			
At the start of the year	7,200	2,100	9,300
Additions	950	350	1,300
Additions through business combinations	10	5	15
Classified as held for sale	(40)	(15)	(55)
Disposals	(260)	(170)	(430)
At the end of the year	7,860	2,270	10,130

Accumulated depreciation and impairment losses			
At the start of the year	800	1,100	1,900
Depreciation expense	120	250	370
Classified as held for sale	(10)	(5)	(15)
Accumulated depreciation on disposals	(70)	(130)	(200)
Impairment losses	30	8	38
Reversal of impairment losses	(5)	(3)	(8)
At the end of the year	<u>865</u>	<u>1,220</u>	<u>2,085</u>
Carrying amount			
At the start of the year	<u>6,400</u>	<u>1,000</u>	<u>7,400</u>
At the end of the year	<u>6,995</u>	<u>1,050</u>	<u>8,045</u>

For your examination, you should be able to prepare a similar table for non-current assets, using data provided in a question or obtained from your solution to an earlier part of the question.

Disclosure is also required of the following information.

- Details of assets pledged as security for liabilities
- The amount of expenditure included in property, plant and equipment in respect of **assets in the course of construction**
- The amount of **contractual commitments** for the acquisition of property, plant and equipment
- The amount of compensation received from third parties in respect of assets impaired, lost or given up.
- For assets that have been revalued:
 - the effective date of revaluation
 - whether an independent valuer was involved
 - the methods and significant assumptions used in estimating fair values
 - the extent to which fair values were determined by prices in an active market or by recent arm's length transactions
- for each revalued class of assets, what the carrying amount would have been under the cost model
- the total revaluation surplus, showing the movements in the revaluation reserve in the period.

4.2 Disclosure requirements of IAS23

IAS23 **Borrowing costs** requires the following disclosures in the notes to the financial statements.

- The amount of borrowing costs capitalised during the period
- The capitalisation rate used to determine the amount of borrowing costs eligible for capitalisation.

Government grants: IAS20

- Introduction and definitions
- Accounting treatment of government grants
- Disclosure requirements

5 Government grants: IAS20

5.1 Introduction and definitions

In many countries the government provides financial assistance to industry. The most common form of such assistance is a grant of cash from local or national government. Such grants are defined by IAS20 as:

- grants related to assets, or
- grants related to income.

Grants related to assets are for the purchase or construction of long-term assets. Conditions may be attached to a grant, specifying the type of assets that should be purchased with the grant, or the location of the assets, or the period in which they are to be acquired or held.

Grants related to income are any other government grants.

5.2 Accounting treatment of government grants

IAS20 states that grants should not be recognised until there is reasonable assurance that:

- the entity will comply with any conditions attaching to the grant, and
- the grant will be received.

Once these **recognition criteria** are met, the grants should be recognised **in profit or loss** over the periods necessary to match them with their related costs.

Neither type of grant should be credited directly to shareholders' interests in the statement of financial position. They must be reported on a systematic basis through the income statement (profit or loss).

Grants related to income

For grants related to income, IAS20 states that an 'income approach' should be used, and the grant should be taken to income over the periods necessary to match the grant with the costs that the grant is intended to compensate.

IAS20 allows two methods of doing this:

- **Method 1.** Include the grant for the period as 'other income' for inclusion on profit or loss for the period
- **Method 2.** Deduct the grant for the period from the related expense.

For example, suppose that a company receives a cash grant of \$30,000 on 1 January Year 1. The grant is towards the cost of training young apprentices, and the training programme is expected to last for 18 months from 1 January Year 1. Actual costs of the training were \$50,000 in Year 1 and \$25,000 in Year 2.

The grant should be recognised partly in profit for Year 1 (\$20,000, which is 12 months/18 months × \$30,000) and partly in Year 2 (the remaining \$10,000). The grant should be taken to income either by:

- recording the grant as other income (\$20,000 and \$10,000 in Year 1 and Year 2 respectively), or
- deducting \$20,000 from the training costs in Year 1 and \$10,000 from the training costs in Year 2.

At the end of Year 1, there is a liability of \$10,000 in the statement of financial position for the grant received but not yet recognised in income.

Grants related to assets

For grants related to assets, IAS20 allows two methods of doing this:

- **Method 1.** Deduct the grant from the cost of the related asset. The asset is included in the statement of financial position at cost minus the grant. Depreciate the net amount over the useful life of the asset.
- **Method 2.** Treat the grant as deferred income and recognise it as income on a systematic basis over the useful life of the asset.

For example, suppose that a company receives a grant of \$400,000 from the government towards the cost of an asset that cost \$1,000,000 and which has an estimated useful life of 10 years and no residual value.

- One way of accounting for the grant would be to record the asset at cost net of grant (\$600,000) and depreciate this amount over ten years.
- The other method is to record the asset at cost (\$1,000,000) and depreciate over ten years, and also to account for the grant as deferred income (a liability in the statement of financial position) and 'release' the grant as income over the next ten years, possibly at the rate of \$60,000 per year.

These two methods achieve the same effective result.



Example: grant related to income

Entity N has received a grant of \$30,000 in relation to training costs of \$100,000.

Required

Show how the costs and the grant could be presented in the financial statements in accordance with IAS20.

a**Answer****Statement of comprehensive income (extracts)**

Method 1	\$
Training costs	(100,000)
Government grant received	30,000
Method 2	
Training costs (100,000 – 30,000)	(70,000)

e**Example: grant related to an asset**

On January Year 1 Entity O purchased a non-current asset with a cost of \$500,000 and received a grant of \$100,000 in relation to that asset. The asset is being depreciated on a straight-line basis over five years.

Required

Show how these amounts could be reflected in the financial statements prepared at the end of Year 1 in accordance with IAS20.

a**Answer****Method 1:**

Statement of financial position	
Property, plant and equipment	\$
Cost (500,000 – 100,000)	400,000
Accumulated depreciation	<u>(80,000)</u>
Carrying amount	<u>320,000</u>
Included in statement of comprehensive income	\$
Depreciation charge (\$400,000/5 years)	80,000

Method 2:

Statement of financial position	
Property, plant and equipment	\$
Cost	500,000
Accumulated depreciation	<u>(100,000)</u>
Carrying amount	<u>400,000</u>
Deferred income (= liability)	
Government grant (100,000 – 20,000)	80,000

Included in statement of comprehensive income	\$
Depreciation charge (\$500,000/5 years) = expense	(100,000)
Release of deferred government grant (\$100,000/5 years) = income	20,000

5.3 Disclosure requirements

IAS20 requires the following disclosures in the notes to the financial statements.

- The accounting policy adopted for government grants, including the method of presentation in the financial statements
- The nature and extent of government grants recognised in the financial statements and an indication of other forms of government assistance from which the entity has directly benefited
- Unfulfilled conditions and other contingencies attaching to government assistance (if this assistance has been recognised in the financial statements).

Investment property: IAS40

- Definitions
- Accounting treatment of investment property
- Transfers and disposals
- Disclosure requirements

6 Investment property: IAS40

6.1 Definitions

An **investment property** is property held to earn rentals or for capital appreciation or both. It differs from non-investment property, which is property:

- used in the production or supply of goods, or for administrative purposes, or
- held for sale in the ordinary course of business.

Property could be land or a building (or part of a building) or both.

The property could be held by:

- the owner, or
- the lessee under a finance lease or an operating lease.

The following are **not** investment property:

- property intended for sale in the ordinary course of business
- property being constructed or developed on behalf of third parties
- owner-occupied property
- property being constructed or developed for future use as an investment property
- property being leased to another entity under a finance lease.

6.2 Accounting treatment of investment property

The **recognition criteria** for investment property are the same as for property, plant and equipment under IAS16. An investment property should be recognised as an asset only when:

- it is probable that future economic benefits associated with the property will flow to the entity, and
- the cost of the property can be measured reliably.

Investment property should be measured initially at **cost plus the transaction costs incurred to acquire the property**.

After initial recognition an entity may choose as its accounting policy:

- the fair value model, or
- the cost model.

The chosen policy must be applied to all the investment property of the entity. Once a policy has been chosen it **cannot be changed** unless the change will result in a more appropriate presentation. IAS 40 states that a change from the fair value model to the cost model is unlikely to result in a more appropriate presentation.

Fair value model for investment property

Under the **fair value model** the entity should:

- revalue all its investment property to 'fair value' (open market value) at the end of each financial year, and
- take the resulting gain or loss to profit or loss for the period in which it arises.

This is different to the revaluation model of IAS16, where gains are reported as other comprehensive income in the statement of comprehensive income (and are not included in profit or loss) and credited to a revaluation reserve.

The reason for this difference is to make the treatment of investment property consistent with that of investments under IAS39.

Fair value is defined as the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction. If it is not possible to arrive at a reliable fair value figure then the cost model should be adopted. This is an exception to the rule that **all** investment property must be valued under either one model or the other.

Cost model for investment property

The **cost model** follows the provisions of IAS16. The property is valued at cost and the non-land element is depreciated.



Example

On 1 January Year 1 Entity P purchased a building for its investment potential. The building cost \$1 million with transaction costs of \$10,000. Its depreciable amount at this date was \$300,000. The property has a useful life of 50 years. At the end of Year 1 the property's fair value had risen to \$1.3 million.

Required

Show the amounts which would be included in the financial statements of Entity P at 31 December Year 1, under:

- (a) the cost model
- (b) the fair value model

a**Answer****(a) Cost model**

In the statement of financial position the property will be included as follows.

	\$
Cost (1,000,000 + 10,000)	1,010,000
Accumulated depreciation (300,000 ÷ 50 years)	<u>(6,000)</u>
Carrying amount	<u>1,004,000</u>

The income statement (statement of comprehensive income) will include depreciation of \$6,000.

(b) Fair value model

The property will be included in the statement of financial position at its fair value of \$1,300,000.

The statement of comprehensive income (income statement) will include a profit of \$290,000 (= \$1,300,000 – \$1,010,000) in respect of the fair value adjustment. (Remember: this treatment of revaluation of an investment property differs from the accounting treatment of a revaluation gain for other non-current assets under IAS16.)

6.3 Transfers of investment property and disposals

A **transfer** to or from investment property means the re-classification of non-investment property as investment property, or the re-classification of investment property as non-investment property. A transfer of investment property can only be made where there is a change of use as illustrated below.

Circumstance	Transfer to/from	Deemed transfer value
Commencement of owner-occupation	Transfer from investment property to owner-occupied property	Fair value at the date of change of use becomes the deemed cost for future accounting purposes
End of owner-occupation	Transfer from owner-occupied property to investment property	Where investment properties are measured at fair value, revalue in accordance with IAS16 prior to the transfer
Commencement of development with a view to sale	Transfer from investment property to inventories	Fair value at the date of change of use becomes the deemed cost for future accounting purposes
End of construction	Transfer from assets in the course of construction to investment property	Where investment properties are measured at fair value, revalue the property at the date of change of use. Recognise any revaluation difference immediately in profit or loss in the statement of comprehensive income

Gains or losses on **disposals** of investment properties are included in profit or loss in the statement of comprehensive income in the period in which the disposal occurs.

The gain or loss on the disposal is calculated as:

	\$
Net disposal proceeds	X
Minus: Carrying amount	<u>(X)</u>
Gain/(loss) on disposal	<u>X/(X)</u>

e

Example

Suppose that the investment property in the previous example was sold in Year 2 for \$1,550,000, and that selling costs were \$50,000.

Required

What amounts would be included in the statement of comprehensive income for Year 2 in respect of this disposal under

- the cost model and
- the fair value model?

a

Answer

(a) Cost model	\$
Sale value	1,550,000
Selling costs	<u>(50,000)</u>
Net disposal proceeds	1,500,000
Minus: Carrying amount	<u>(1,004,000)</u>
Gain on disposal	<u>496,000</u>

(b) Fair value model	\$
Sale value	1,550,000
Selling costs	<u>(50,000)</u>
Net disposal proceeds	1,500,000
Minus: Carrying amount	<u>(1,300,000)</u>
Gain on disposal	<u>200,000</u>

6.4 Disclosure requirements

The following disclosures are required by IAS40 in the notes to the accounts.

Disclosure requirements applicable to both the fair value model and the cost model

- Whether the fair value model or the cost model is used
- The methods and assumptions applied in arriving at fair values
- The extent to which the fair value of investment property was based on a valuation by a qualified, independent valuer with relevant, recent experience
- Amounts recognised in income or expense in the statement of comprehensive income for:
 - rental income from investment property
 - operating expenses in relation to investment property
- Details of any restrictions on the ability to realise investment property or any restrictions on the remittance of income or disposal proceeds
- The existence of any contractual obligation to purchase, construct or develop investment property or for repairs, maintenance or enhancements

Disclosure requirements applicable to the fair value model only

There must be a reconciliation, in a note to the financial statements, between opening and closing values for investment property, showing:

- additions during the year
- assets classified as held for sale in accordance with IFRS5
- net gains or losses from fair value adjustments
- acquisitions through business combinations

This reconciliation should show separately any amounts in respect of investment properties included at cost because their fair values cannot be estimated reliably.

For investment properties included at cost because fair values cannot be estimated reliably, the following should also be disclosed:

- a description of the property
- an explanation as to why fair values cannot be determined reliably
- if possible, the range within which the property's fair value is likely to lie.

Disclosure requirements applicable to the cost model only

- The depreciation methods used
- The useful lives or depreciation rates used
- Gross carrying amounts and accumulated depreciation at the beginning and at the end of the period
- A reconciliation between opening and closing values showing:
 - additions
 - depreciation
 - assets classified as held for sale in accordance with IFRS5

- acquisitions through business combinations
- impairment losses
- transfers.

When the cost model is used, the fair value of investment property should also be disclosed. If the fair value cannot be estimated reliably, the same additional disclosures should be made as under the fair value model.

6.5 Why investment properties are treated differently from other properties

Most properties are held to be used directly or indirectly in the entity's business. For example, a factory houses plant and equipment which is used to produce goods for sale. The property is being consumed and it appropriate to depreciate it over its useful life.

An investment property is held primarily because it is expected to increase in value. It generates economic benefits for the entity because it will eventually be sold at a profit. An investment property also differs from other properties because it generates revenue and cash flows largely independently of other assets held by an entity.

The most relevant information about an investment property is its fair value (the amount for which it could be sold). Depreciation is largely irrelevant. Therefore it is appropriate to remeasure an investment property to fair value each year and to recognise gains and losses in profit or loss for the period.

The IASB originally wanted to require entities to use the fair value model only. However, at the time that IAS 40 was originally issued, this would have been a radical and probably controversial step. Therefore the IASB decided to allow entities to continue to measure investment properties at depreciated historical cost if they choose.

Intangible assets

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Intangible assets: IAS38

- Objective and scope of IAS38
- Definition of an intangible asset
- Recognition criteria for intangible assets
- Internally-generated intangibles
- Research and development expenditure
- Measurement of intangibles
- Amortisation and impairment of intangible assets
- Disposal of intangible assets
- Disclosure requirements

1 Intangible assets: IAS38

1.1 Objective and scope of IAS38

IAS38 **Intangible assets** deals with the recognition and measurement of intangible assets, including development expenditure, and disclosure requirements for intangible assets.

The **objective** of IAS38 is to set out the treatment of intangible assets that are not covered by other accounting standards.

The most relevant exception to the coverage of IAS38 is goodwill acquired in a business combination. This is covered by IFRS3 **Business combinations**. The treatment of goodwill is considered in more detail in a later chapter, but some introductory points are made in this chapter.

An important accounting issue with 'intangible items' is whether they should be treated as an expense and included in full in profit or loss for the period in which they are incurred, or whether they should be capitalised and treated as a long-term asset. Most types of long-term intangible asset are 'amortised' over their expected useful life. (Amortisation of intangible assets is the equivalent of depreciation of tangible non-current assets.)

IAS38:

- requires intangible assets to be recognised in the financial statements if, **and only if**, specified criteria are met
- sets out how to measure the carrying amount of intangibles assets that are recognised
- sets out disclosure requirements for intangible assets in the financial statements.

1.2 Definition of an intangible asset

An **intangible asset** is 'an identifiable, non-monetary asset without physical substance'. This definition **does not therefore apply** to:

- items of property, plant and equipment, which physically exist, or
- assets such as receivables and cash, which are monetary assets.

Control

An **asset** is a resource **controlled** by the entity as a result of past events and from which future economic benefits are expected to flow. This definition is useful in deciding whether an intangible item meets the criteria for treatment as an intangible asset.

- For tangible assets such as property, plant and equipment the asset physically exists and the entity controls it.
- However, in the case of an intangible asset, control may be harder to achieve or prove.

Control would usually arise where there are legal rights, for example legal rights over the use of patents or copyrights. Ownership of legal rights would indicate control over them. However, some entities have tried to capitalise 'intangibles' such as the costs of staff training or customer lists. These would fail the control test because an entity **does not control them**.

- **Staff training.** Staff training creates skills that could be seen as an asset for the employer. However, staff could leave their employment at any time, taking with them the skills they have acquired through training.
- **Customer lists.** Similarly, control is not achieved by the acquisition of a customer list, since most customers have no obligation to make future purchases.

Need to be identifiable

An intangible asset must also be 'identifiable'. Intangibles, by their very nature, do not physically exist. It is therefore important that this 'identifiability test' is satisfied.

IAS38 states that to be **identifiable** an intangible asset:

- must be separable, or
- must arise from contractual or other legal rights.

To be **separable**, the intangible must be capable of being separated or divided from the entity, and sold, transferred, licensed, rented or exchanged.

Many typical intangibles such as patent rights, copyrights and purchased brands would meet this test, (although they might fail other recognition criteria for an intangible asset).

1.3 Recognition criteria for intangible assets

If an item meets the definitions of being an asset, and being intangible, certain recognition criteria must be applied to decide whether the item should be recognised as an intangible asset.

These recognition criteria are broadly the same as those specified in IAS16 for tangible non-current assets. IAS38 states that an intangible asset should be recognised in the financial statements of an entity only when:

- it is probable that expected future economic benefits arising from the asset will flow to the entity, and
- the cost of the intangible asset can be measured reliably.

Economic benefits can arise in the form of sales revenue from products or services, cost savings, or other benefits.

1.4 Internally-generated intangibles

An internally-generated intangible asset is an asset created by an entity through its own efforts. (An internally-generated asset differs from an acquired asset that has been purchased from an external seller.) For example, a publishing company may build up legal copyrights by publishing books.

It can sometimes be difficult for an entity to assess whether an internally-generated asset qualifies for recognition as an asset in the financial statements. This is likely to be because:

- it fails the 'identifiability test', or
- its cost cannot be determined reliably.

Although IAS38 does not ban completely the recognition of internally-generated intangibles, it does prohibit the recognition as non-current assets of the following **internally-generated** intangible items:

- goodwill
- brands
- mastheads (Note: a masthead is a recognisable title, usually in a distinctive typographical form, appearing at the top of an item. An example is a newspaper masthead on the front page of a daily newspaper)
- publishing titles
- customer lists.

IAS38 prohibits the recognition of these items as intangible assets because the internal costs of producing these items cannot be distinguished separately from the costs of developing and operating the business as a whole.

If some of the items in the above list of intangibles are **purchased from another business entity**, then they might be recognised as intangible assets. This is because the fact of the purchase means that the asset must exist separate from the business

as a whole and there is a cost attached to it that can be measured reliably (which is the purchase cost of the item).

IAS38 does not prohibit the recognition of all internally-generated intangibles as intangible assets in the financial statements. The main internally-generated intangible considered by IAS38 is research and development expenditure, and if certain criteria are met, IAS38 requires development expenditure to be 'capitalised' and treated as an intangible asset.

1.5 Research and development expenditure

Definitions

The term 'research and development' is commonly used to describe work on the innovation, design, development and testing of new products, processes and systems. IAS38 makes a clear distinction between 'research' and 'development'.

- **Research** is defined as original and planned investigation undertaken to gain 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 products, processes, systems or services before the start of commercial production or use.

Examples of **research activities** include:

- Activities aimed at obtaining new knowledge
- The search for and evaluation of applications of knowledge obtained from research
- The search for alternative materials, products or processes
- The formulation and testing of possible alternatives for new materials, products or processes.

Examples of **development activities** include:

- The design, construction and testing of pre-production prototypes and models
- The design of tools involving new technology
- The construction and operation of a pilot plant that is not large enough for economic commercial production
- The design, construction and testing of new materials, products or processes.

Accounting treatment of research costs

Expenditure on research should be recognised as an expense as it is incurred and included in profit or loss for the period. Research costs cannot be an intangible asset. (Any property, plant and equipment used in research or on a research phase, such as laboratory equipment, could be capitalised in accordance with IAS16 and depreciated. The depreciation charge is a revenue expense.)

IAS38 states: 'No intangible asset arising from research ... shall be recognised. Expenditure on research ... shall be recognised as an expense when it is incurred.'

Accounting treatment of development costs

Development costs must be recognised as an intangible asset, **but only if all the following conditions** can be demonstrated.

- It is technically feasible to complete the development project.
- The entity intends to complete the development of the asset and then use or sell it.
- The asset that is being developed is capable of being used or sold.
- Future economic benefits can be generated. This might be proved by the existence of a market for the asset's output or the usefulness of the asset within the entity itself.
- Resources are available to complete the development project.
- The development expenditure can be measured reliably (for example, via costing records).

If any of these conditions is not met, the development expenditure should be treated in the same way as research costs and recognised in full as an expense when it is incurred, and cannot be treated as an intangible asset.

Once such expenditure has been written off as an expense, it cannot subsequently be reinstated as an intangible asset. Expenditure on development may only be capitalised and treated as an intangible asset if it is incurred after all the conditions for recognition of the development costs as an intangible asset have been met.



Example

Entity Q has undertaken the following activities during Year 1.

- (1) Training of sales staff at a cost of \$50,000. Additional revenue as a result of training the staff to a higher level of skill is expected to be in the region of \$500,000.
- (2) Development of a new product. Total expenditure on development of the product has been \$800,000. All of the conditions for recognising the development costs as an intangible asset have now been met. However, \$200,000 of the \$800,000 was spent before it became clear that the project was technically feasible, could be resourced and the developed product would be saleable and profitable.

Required

Consider how the above amounts will be dealt with in the financial statements of Entity Q for Year 1.



Answer

Training costs. These must be written off as an expense in full when they are incurred. The 'asset' (the training costs) is not controlled by Entity Q. The cost is controlled by the staff who could leave at any time.

Development costs. The \$200,000 incurred before all of the conditions for recognising the development costs as an intangible asset were met must be written off as an expense. The remaining \$600,000 should be capitalised and recognised as an intangible asset (development costs).

1.6 Measurement of intangibles

Initial measurement

Intangible assets should be measured initially at their **cost**.

The cost of a purchased intangible asset is its purchase price.

The cost of an internally-generated intangible asset (such as development expenditure) is the expenditure incurred from the date when the asset first meets the recognition criteria. It should **not** include:

- selling, administrative and other general overheads
- training costs
- advertising expenditure.

Measurement of intangible assets after initial recognition

As with IAS16 and tangible non-current assets, having recognised an intangible asset, the entity should then choose between:

- the cost model, or
- the revaluation model.

This is an accounting policy choice and the selected policy must be applied consistently across each class of intangible assets.

Under the **cost model**, assets are carried at cost minus any accumulated amortisation and any accumulated impairment losses. (Amortisation is the intangible asset equivalent to depreciation.)

Under the **revaluation model**, assets are carried at fair value, minus any accumulated amortisation and any accumulated impairment losses. Fair value must be determined by reference to an active market. Revaluations must be carried out regularly, so that at the end of any reporting period, the carrying amount of the asset in the statement of financial position is not materially different from its fair value.

An **active market** is defined as one where:

- the items traded are 'homogenous' (all the same)
- willing buyers and sellers can be found at any time, and
- market prices are available to the public.

If no such market exists for the asset (and in practice, due to the unique nature of intangibles, such a rarely will exist for intangible items) then the cost model must be adopted.

1.7 Amortisation and impairment of intangible assets

The useful life of an intangible should be assessed as being either:

- finite, or
- indefinite.

A **finite useful life** is a useful life that will come to an end, within a foreseeable time. An **indefinite useful life** is one where there is no foreseeable limit to the asset's useful life.

Intangibles with a finite useful life

Where the useful life is assessed as **finite**:

- the intangible should be amortised over its estimated useful life
- its residual value is usually assumed to be zero
- amortisation charges should be charged as an expense in each period over the useful life of the asset
- if there are any indications of impairment, then an (IAS36) **impairment review** should be carried out.

Intangibles with an indefinite useful life

Where the useful life is assessed as **indefinite**:

- the intangible asset should not be amortised
- **impairment reviews** should be carried out **annually** (and even more frequently if there are any indications of impairment).

1.8 Disposals of intangible assets

The rules for de-recognition of intangible assets (accounting for their 'disposal') are the same as for property, plant and equipment under IAS16. There is a gain or loss on disposal equal to the difference between the net disposal proceeds and the carrying value of the asset at the time of disposal.

1.9 Disclosure requirements

In the financial statements, disclosures should be made separately for each class of intangible asset. (Within each class, disclosures must also be made by internally-generated intangibles and other intangibles, where both are recognised.)

Most of the disclosure requirements are the same as for tangible non-current assets in IAS16. The only additional disclosure requirements are set out below.

- Whether the useful lives of the assets are finite or indefinite.
- If the useful lives are finite, the useful lives or amortisation rates used.
- If the useful lives are indefinite, the carrying amount of the asset and the reasons supporting the assessment that the asset has an indefinite useful life.



Example

An example is shown below of a note to the financial statement with disclosures about intangible assets

	Internally- generated development costs	Software licences	Goodwill	Total
	\$m	\$m	\$m	\$m
Cost				
At the start of the year	290	64	900	1,254
Additions	60	14	-	74
Additions through business combinations	-	-	20	20
Disposals	(30)	(4)	-	(34)
At the end of the year	<u>320</u>	<u>74</u>	<u>920</u>	<u>1,314</u>
Accumulated depreciation and impairment losses				
At the start of the year	140	31	120	291
Amortisation expense	25	10	-	35
Impairment losses	-	-	15	15
Accumulated amortisation on disposals	10	2	-	12
At the end of the year	<u>175</u>	<u>43</u>	<u>135</u>	<u>353</u>
Net carrying amount				
At the start of the year	<u>150</u>	<u>33</u>	<u>780</u>	<u>963</u>
At the end of the year	<u>145</u>	<u>31</u>	<u>785</u>	<u>961</u>

- For any intangible asset that is **individually material** to the financial statements, the following disclosure is required:
 - a description
 - its carrying amount
 - the remaining amortisation period.
- The total amount of **research and development** expenditure written off (as an expense) during the period must also be disclosed.

Goodwill: IAS38 and IFRS3

- Purchased goodwill: IAS38 AND ifrs3
- Non-purchased goodwill
- Negative goodwill: IFRS3

2 Goodwill: IAS38 and IFRS3

2.1 Purchased goodwill: IAS38 and IFRS3

Purchased goodwill arises when one business buys another. It is calculated as the difference between the purchase cost of the acquisition and the fair value of the (net) assets acquired:

	\$
Cost of acquisition	X
Minus: Fair value of the net assets acquired (at the date of the acquisition)	(X)
Purchased goodwill	X

A purchaser is usually willing to pay more than the fair value of the net assets acquired because almost all businesses have some goodwill. Goodwill may exist for a number of reasons: the reputation of the business, a good list of customers or a good geographical location. Purchased goodwill is recognised in the financial statements.

In contrast, the goodwill that a business generates itself as it operates over time (**internally-generated** goodwill) is not recognised in the financial statements as an intangible asset.

Purchased goodwill is recognised because it has a measurable value, and arises as a result of a business transaction at a point in time. The transaction is the acquisition of the other business, and the goodwill is measurable (as shown above). The fact that the buyer of the business is willing to pay a price in excess of the value of net assets acquired indicates a probability that future economic benefits will flow to the buyer; therefore the goodwill also meets the definition of asset in this sense.

Goodwill is defined by IFRS3 as an asset representing future economic benefits arising from other assets acquired in a business combination that are not capable of being individually identified and separately recognised.

An essential difference between goodwill and other intangible assets is that goodwill is not separable (it cannot be sold separately) from the other assets of the business.

Purchased goodwill is the difference between the purchase price for a business and the fair value of the net assets acquired. In order to calculate the purchased goodwill, the fair value of the net assets acquired must include **all** other separately identifiable assets, including any separately-identifiable intangible assets. Otherwise goodwill itself will be overstated.

The separately-identifiable intangible assets of the purchased business cannot include any goodwill in the statement of financial position of the business being acquired. This is because any such goodwill cannot be sold separately, without the business as a whole.

e

Example

Entity R buys the business of S, a sole trader, and pays \$350,000 as the purchase cost. At the date of acquisition, the fair value of the assets of S was \$420,000 and the fair value of its liabilities was £90,000.

Required

Calculate the goodwill arising on the acquisition of S in the books of Entity R.

a

Answer

	\$
Cost of acquisition	350,000
Minus: Fair value of net assets acquired (420 – 90)	<u>(330,000)</u>
Purchased goodwill	<u>20,000</u>

This purchased goodwill will be recognised in the financial statements of Entity R at its cost of \$20,000.

Where goodwill arises on the acquisition of a **subsidiary or associated company** it is covered by IFRS3 **Business combinations**. This goodwill in business combination is not covered by IAS38).

Brief summary of purchased goodwill and IFRS3

The main provisions of IFRS3 are described in later chapters on consolidated accounts, which is where this type of purchased goodwill appears. However, the main provisions in IFRS3 about the treatment of goodwill arising on an acquisition of a subsidiary can be summarised as follows.

- Goodwill arising on acquisition is recognised in the statement of financial position as an intangible non-current asset.
- Purchased goodwill arising on acquisition is **not amortised**, but **reviewed for impairment annually**.

2.2 Non-purchased goodwill

Non-purchased goodwill does not meet the recognition criteria for an intangible asset, so it is **not recognised** in the financial statements.

2.3 Negative goodwill: IFRS3

In very unusual circumstances, purchased goodwill might be 'negative'. This will happen if the price paid to acquire another business is less than the fair value of the net assets acquired. IFRS3 refers to this as a 'bargain purchase', which might occur for example when a seller is forced into a sale of its business at a knock-down price.

In this situation:

- the calculation of goodwill should be checked carefully (because negative goodwill is very unusual and should arise **only rarely**)
- any negative goodwill should be taken as a gain to the consolidated statement of comprehensive income for the period in which the acquisition or purchase occurs, as an addition to the profit for the period.

Negative goodwill is not recognised in the statement of financial position.

Impairment of assets

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Impairment of assets: IAS36

- Objective and scope of IAS36
- Identifying impairment or possible impairment
- Accounting for impairments
- Measuring recoverable amount
- Cash-generating units
- Allocating an impairment loss to the assets of a cash generating unit
- Reversal of an impairment loss
- Disclosure requirements for the impairment of assets

1 Impairment of assets: IAS36

1.1 Objective and scope of IAS36

The **objective** of IAS36 **Impairment of assets** is to ensure that assets are 'carried' (valued) in the financial statements at **no more than** their recoverable amount.

Recoverable amount of assets

The **recoverable amount** of an asset is defined as the **higher** of its:

- fair value minus costs to sell, and
- value in use.

Fair value less costs to sell is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

Value in use is the present value of future cash flows from using an asset, including its eventual disposal.

Scope of IAS36

IAS36 applies to all assets, with the following exceptions that are covered by another accounting standard:

- inventories (IAS2)
- construction contracts (IAS2)
- deferred tax assets (IAS12)
- assets arising from employee benefits (IAS19)
- financial assets covered by IAS39
- investment property held at fair value (IAS40)
- non-current assets classified as held for sale (IFRS5).

1.2 Identifying impairment or possible impairment

Impairment means a loss in quality. When an asset is impaired, it loses value because it loses quality. IAS36 defines an **impairment loss** as 'the amount by which the carrying amount of an asset (or a cash-generating unit) exceeds its recoverable amount.'

An entity must carry out an impairment review when there is evidence or an indication that impairment may have occurred. At the end of each reporting period, an entity should assess whether there is any indication that impairment might have occurred. If such an indication exists, the entity must estimate the recoverable amount of the asset, in order to establish whether impairment has occurred and if so, the amount of the impairment.

Indicators of impairment

The following are given by IAS36 as possible **indicators of impairment**. These may be indicators outside the entity itself (external indicators), such as market factors and changes in the market. Alternatively, they may be internal indicators relating to the actual condition of the asset or the conditions of the entity's business operations.

■ External sources

Examples of external indicators of impairment are:

- Asset values generally declining in the period more significantly than would usually be expected.
- Significant changes in the technological, economic, market or legal environment. (For an example an asset may become impaired because it is becoming technologically out-of-date.)
- Increases in interest rates that change the calculation of the asset's value in use.

■ Internal sources

Examples of internal indicators of impairment are:

- Evidence of physical damage, obsolescence or poor performance
- The asset becomes idle, or there are new plans to restructure that part of the business in which the asset is used (without the asset being classified as held for sale).

Additional requirements for testing for impairment

The following assets must be reviewed for impairment at least annually, even when there is no evidence of impairment:

- an intangible asset with an indefinite useful life
- goodwill acquired in a business combination. (This is explained in more detail later.)

1.3 Accounting for impairments

Impairment of an asset should be identified and accounted for as follows.

- (1) At the end of each reporting period, the entity should assess whether there are any indications that an asset may be impaired.
- (2) If there are such indications, the entity should estimate the asset's **recoverable amount**.
- (3) When the recoverable amount is less than the carrying value of the asset, the entity should reduce the asset's carrying value to its recoverable amount. The amount by which the value of the asset is written down is an **impairment loss**.
- (4) This impairment loss is recognised as a loss for the period.
- (5) However, if the impairment loss relates to an asset that has previously been re-valued upwards, it is first offset against any remaining revaluation surplus for that asset. When this happens it is reported as other comprehensive income for the period (a negative value) and not charged against profit.
- (5) Depreciation charges for the impaired asset in future periods should be adjusted to allocate the asset's revised carrying amount, minus any residual value, over its remaining useful life (revised if necessary).



Example

A non-current asset had a carrying amount of \$80,000 in the statement of financial position of an entity at the beginning of the financial year. The asset had previously been revalued, and there was a revaluation surplus of \$5,000 relating to it in the revaluation reserve.

At the end of the financial year, the entity suspected that the asset had been impaired. It therefore estimated the recoverable amount of the asset and found this to be \$60,000. The depreciation charge for the asset for the year would be \$8,000.

There is an impairment loss of \$20,000 (= \$80,000 - \$60,000). Of this, \$5,000 may be offset against the revaluation reserve (the remaining revaluation surplus for the asset) and reported as a negative amount in 'other comprehensive income' for the year. The remaining \$15,000 must be written off as an expense for the period, and the asset should be re-stated at its recoverable amount (\$60,000) in the statement of financial position.

In the next year, depreciation should be based on the new carrying value of the asset (\$60,000) less any expected residual value.



Example

On 1 January Year 1 Entity Q purchased for \$240,000 a machine with an estimated useful life of 20 years and an estimated residual value of \$0. Entity Q depreciates such machines on a straight-line basis. On 1 January Year 4 an impairment review showed the machine's recoverable amount to be \$100,000 and its remaining useful life to be 10 years.

Required

- (a) Calculate the amounts to be included in the statement of comprehensive income for Year 4.
- (b) Calculate the amounts to be included in the statement of comprehensive income for Year 4 if the asset had been re-valued on 1 January Year 3 to \$250,000, but with no change in useful life at that date.

a**Answer****Part (a)**

On 31 December Year 3 the machine was stated at the following amount

	\$
Cost	240,000
Accumulated depreciation ($3 \times (240,000 \div 20)$)	<u>(36,000)</u>
Carrying amount	<u>204,000</u>

The statement of comprehensive income for Year 4 will reflect an impairment loss of \$104,000 ($= \$204,000 - \$100,000$) at the beginning of Year 4, reducing the reported profit. In addition, there will be a depreciation charge in Year 4 of \$10,000 ($= \$100,000 \div 10$). The depreciation charge is based on the recoverable amount of the asset.

Part (b)

When the asset is revalued on 1 January Year 3, depreciation is charged on the revalued amount over its remaining expected useful life. On 31 December Year 3 the machine was therefore stated at:

	\$
Valuation at 1 January (re-valued amount)	250,000
Accumulated depreciation in Year 3 ($= \$250,000 \div 18$)	<u>(13,889)</u>
Carrying amount	<u>236,111</u>

In addition, there is a **revaluation surplus**. This arises when the asset was re-valued to \$250,000 on 1 January Year 3. The revaluation surplus is \$34,000.

	\$
Cost	240,000
Accumulated depreciation at 1 January Year 3 ($2 \text{ years} \times (240,000 \div 20)$)	<u>(24,000)</u>
Carrying amount	216,000
Valuation at 1 January Year 3	<u>250,000</u>
Revaluation surplus	<u>34,000</u>

On 1 January Year 4 the impairment review shows an impairment loss of \$136,111 ($= \$236,111 - \$100,000$).

- An impairment loss of \$34,000 will be taken to the revaluation reserve, which is the revaluation surplus previously recorded for the asset. This part of the loss is also reported as negative income within 'other comprehensive income' in the statement of comprehensive income for Year 4.
- The statement of comprehensive income for Year 4 will include the remaining impairment loss of \$102,111 (= \$136,111 – \$34,000) and a depreciation charge of \$10,000 (= \$100,000 ÷ 10 years), both as expenses for the year.

1.4 Measuring recoverable amount

It has been explained that recoverable amount is the higher of (1) fair value less costs to sell and (2) value in use. If either of these amounts is higher than the carrying value of the asset, there has been no impairment.

IAS36 sets out the requirements for measuring 'fair value less costs to sell' and 'value in use'.

Measuring fair value less costs to sell

Fair value is normally market value. If no active market exists, it may be possible to estimate the amount that the entity could obtain from the disposal.

Direct selling costs normally include legal costs, stamp duty and costs necessary to bring the asset into a condition to be sold. However, redundancy and similar costs (for example, where a business is reorganised following the disposal of an asset) are not direct selling costs.

IAS36 comments that 'the best evidence of an asset's fair value less costs to sell is a price in a binding sale agreement in an arm's length transaction, adjusted for incremental costs that would be directly attributable to the disposal of the asset.'

Calculating value in use

Value in use is a value that represents the present value of the expected future cash flows from use of the asset, discounted at a suitable discount rate or cost of capital. Value in use is therefore calculated by:

- estimating future cash flows from the use of the asset (including those from ultimate disposal)
- discounting them to present value.

Estimates of future cash flows should be based on reasonable and supportable assumptions that represent management's best estimate of the economic conditions that will exist over the remaining useful life of the asset.

The discount rate used should be the rate of return that the market would expect from an equally risky investment.

However, both the expected future cash flows and the discount rate might be adjusted to allow for uncertainty about the future – such as the business risk associated with the asset and expectations of possible variations in the amount of timing of expected future cash benefits from using the asset.

1.5 Cash-generating units

It is not always possible to calculate the recoverable amount of individual assets. Value in use often has to be calculated for groups of assets, because assets may not generate cash flows in isolation from each other. An asset that is potentially impaired may be part of a larger group of assets which form a **cash-generating unit**.

IAS 36 defines a **cash generating unit** as the smallest identifiable group of assets that generates cash outflows that are largely independent of the cash inflows from other assets or groups of assets.

Goodwill

The existence of cash-generating units may be particularly relevant to goodwill acquired in a business combination. Purchased goodwill must be reviewed for impairment **annually**, and the value of goodwill cannot be estimated in isolation. Often, goodwill relates to a whole business.

It may be possible to allocate purchased goodwill across several cash-generating units. If allocation is not possible, the impairment review is carried out in two stages:

- 1 Carry out an impairment review on each of the cash generating units (excluding the goodwill) and recognise any impairment losses that have arisen.
- 2 Then carry out an impairment review for the entity as a whole, including the goodwill.

1.6 Allocating an impairment loss to the assets of a cash generating unit

When an impairment loss arises on a cash generating unit, the impairment loss is allocated across the assets of the cash-generating unit in the following order:

- first, to the goodwill allocated to the cash-generating unit
- next, to the other assets in the cash-generating unit, on a pro-rata basis (i.e. in proportion to the carrying amount of the assets of the cash generating unit).

However, the carrying amount of an asset cannot be reduced below the highest of:

- its fair value less costs to sell (if determinable);
- its value in use (if determinable); and
- zero.



Example

A cash-generating unit is made up of the following assets.

	\$m
Property, plant and equipment	90
Goodwill	10
Other assets	60
	160

The recoverable amount of the cash-generating unit has been assessed as \$140 million.

Required

Show how the impairment loss would be allocated across the assets of the cash-generating unit.



Answer

There is a total impairment loss of \$20 million (= \$160m – \$140m). Of this, \$10 million is allocated to goodwill, to write down the goodwill to \$0. The remaining \$10 million is then allocated to the other assets pro-rata. Therefore:

- \$6 million (= $\$10\text{m} \times 90/150$) of the impairment loss is allocated to property, plant and equipment, and
- \$4 million (= $\$10\text{m} \times 60/150$) of the loss is allocated to the other assets in the unit.

1.7 Reversal of an impairment loss

An impairment loss may be reversed when there is evidence that this has happened. Any reversal:

- must be justifiable, by reference to an improvement in the indicators of impairment, and
- should not lead to a carrying amount in excess of what the carrying amount of the asset would have been without the recognition of the original impairment loss.

A reversal should be:

- recognised immediately in profit or loss, unless
- the original impairment was charged to the revaluation reserve, in which case the reversal should be credited to the revaluation reserve (and reported in the same way as a revaluation in 'other comprehensive income' for the period).

Depreciation charges for future periods should be adjusted to allocate the asset's revised carrying amount, minus any residual value, over its remaining useful life.

An impairment loss that has arisen on purchased goodwill **cannot** be reversed. (This is because any reversal of an impairment loss to goodwill is likely to be caused by an increase in internally-generated goodwill rather than a reversal of the impairment of purchased goodwill. Internally-generated goodwill must not be reported as an asset.)

1.8 Disclosure requirements for the impairment of assets

For all impairments, the following disclosures should be made for each class of assets.

- The amount of impairment losses recognised in profit or loss for the period and the line item in the statement of comprehensive income in which those items are included.
- Similar information about reversals of impairment losses recognised in profit or loss for the period.
- The amount of impairment losses on revalued assets that have been recognised (or reversed) in other comprehensive income for the period (and in the revaluation reserve).
- If the recognition or reversal of an individual impairment loss is material to the financial statements, there should be additional disclosure of:
 - the events that led to the recognition or reversal of the impairment loss
 - the amount of the impairment loss recognised or reversed
 - the nature of the asset
 - whether the recoverable amount is fair value minus costs to sell or value in use, and how the figure for the recoverable amount was calculated.

Inventory

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1	Intangible assets: IAS36
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Inventories: IAS2

- Definition of inventory
- Valuation: lower of cost and net realisable value
- Measuring the cost of inventory
- Disclosure requirements for inventory

1 Inventories: IAS2

1.1 Definition of inventory

Inventories are:

- Assets held for sale. For a retailer, these are items that the business sells – its stock-in trade. For a manufacturer, assets held for sale are usually referred to as ‘finished goods’
- Assets in the process of production for sale (‘work-in-progress’ for a manufacturer)
- Assets in the form of materials or supplies to be used in the production process (‘raw materials’ in the case of a manufacturer).

There are several rules in IAS2 dealing with the valuation (measurement) of inventory in the statement of financial position.

1.2 Valuation: lower of cost and net realisable value

IAS2 **Inventories** states that inventories should be valued at the **lower** of:

- **cost** and
- **net realisable value**.

Cost consists of all the costs of purchase, plus the costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

- Costs of purchase include the cost of the item itself (less any trade discounts) plus import duties, transport costs and other handling costs.
- Costs of conversion are the ‘internal costs’ incurred in getting the inventory into its current state, such as the internal costs incurred in producing finished goods. They include both direct costs (such as labour and expenses) and a share of production overheads, where production overhead absorption rates are **based on normal levels of activity**.

Net realisable value (NRV) is the estimated selling price of the item minus:

- all the (estimated) costs to make the item ready for sale, and
- all the (estimated) costs necessary to make the sale.

IAS2 comments that the practice of writing down inventories below cost to their net realisable value is consistent with the view that assets should not have a carrying value in the statement of financial position that exceeds the amount expected to be realised from their sale or use.

1.3 Measuring the cost of inventory

IAS2 allows three methods for measuring the cost of inventories.

- Actual cost
- First-in, first-out (FIFO)
- Weighted average cost (AVCO).

Actual cost is used where items can be individually traced. This is usual for high-value items. For example, cars for sale in a car dealer's showroom will normally be valued at actual cost in the financial statements of the car dealer.

Where it is not possible to identify actual cost, a choice is allowed between FIFO or AVCO. The chosen method should be applied consistently to all similar types of inventories.

1.4 Disclosure requirements for inventory

IAS2 requires the following disclosures in notes to the financial statements.

- The accounting policy adopted for measuring inventories, including the cost valuation method used.
- The total carrying amount of inventories, classified appropriately. (For a manufacturer, appropriate classifications will be raw materials, work-in-progress and finished goods.)
- The amount of inventories carried at net realisable value or NRV ('fair value minus costs to sell').
- The amount of inventories written down in value, and so recognised as an expense during the period.
- Details of any circumstances that have led to the write-down of inventories to NRV.

Construction contracts: IAS11

- Definition of a construction contract
- The accounting problem with construction contracts
- Recognising revenue and costs of a contract in the financial statements
- Measuring revenue, costs and profit or loss for a contract
- Disclosure in the financial statements and amounts in the statement of financial position

2 Construction contracts: IAS11

2.1 Definition of a construction contract

A construction contract is a contract specifically negotiated with a client for the construction of:

- a single asset such as a bridge, building, pipeline or road, or
- a number of related assets. For example, an oil refinery might be made up of several assets, such as buildings, pipelines, oil tanks and so on

2.2 The accounting problem with construction contracts

IAS11 **Construction contracts** sets out how an entity that is constructing an asset under a construction contract (the contractor) should deal in its financial statements with the revenues and costs arising from that contract.

The work on a large construction contract is likely to cover at least two accounting periods (and in the case of large construction contracts is often more than two accounting periods). The main problem with the accounting for construction contracts is therefore to decide how to allocate the revenue and costs of the contracts between the different accounting periods and when to recognise profit.

One possible way of accounting for a construction contract would be to wait until the contract is complete before taking all the revenue and costs for the contract to profit or loss. However, this would result in misleading financial statements, because it would be misleading to report no profits or losses in the years in which a long-term contract remains unfinished, and then to report all the profit or loss for several years' work on the contract in the year of completion. This method of accounting for construction contracts is therefore not used.

IAS11 requires construction contracts to be accounted for on an **accruals basis**. It states that revenue and costs should be **matched** to accounting periods. This means that in each accounting period, a proportion of the overall (estimated) profits on the contract are taken to profit or loss.

Provided that estimates are made on a reasonable basis, then the amounts taken to profit or loss in each year, in accordance with IAS11, will reflect the underlying position – which is that profits are earned over the life of the construction contract, not on the date that the contract is finally completed.

However, IAS 11 also applies the following requirements.

- Revenue and costs can only be recognised when the outcome of a contract can be estimated reliably.
- If a contract is expected to make a loss, the whole of the loss must be recognised immediately.

These requirements apply the concept of prudence and help to ensure that the information in the financial statements is reliable.

IAS 11 appears to be at odds with the ‘accounting equation’ approach adopted by the IASB Framework and other accounting standards, in which equity is the difference between assets and liabilities, and profit for the year is the increase in equity (assuming no dividend payments, no share issues and no upward asset revaluations). IAS 11 takes a different view of the accounting process, in which transactions are matched to accounting periods and assets and liabilities are the amounts ‘left over’.

2.3 Recognising revenue and costs of a contract in the financial statements

The following rules apply to the recognition of the revenue and costs for a construction contract in the financial statements of the contractor.

Contract revenue

Contract revenue is the amount payable by the customer. IAS 11 defines it as:

- the initial amount of revenue agreed in the contract; plus
- variations in contract work, claims and incentive payments (provided that these will probably result in revenue and can be reliably measured).

All of the contract price, or a large part of it, may be a fixed amount (= a price agreed in the terms of the contract). Provided that the outcome of the contract can be estimated reliably, revenue is taken to profit or loss as the contract progresses. This is sometimes called the **percentage of completion** method of accounting for construction contracts.

Determining the stage of completion of a contract

There are several possible methods of measuring the stage (percentage) of completion of a contract.

- Use the percentage of total contract costs incurred to date (sometimes called the **costs basis**). This is the more common method in examination questions.
- Use surveys of work performed (sometimes called the **sales basis**). As a contract progresses, at periodic intervals, an independent expert such as a surveyor may inspect the work, and issue a certificate stating the amount or value of the work done so far. The most recent certificate issued by the independent expert

provides a basis for judging the proportion of the contract work that has been completed.

- Use the physical proportion of the contract work that has been completed.

The percentage of completion should not normally be based on the percentage of the total fee received from the customer to date. This is unlikely to reflect the proportion of the work actually completed.

Contract costs

Contract costs are:

- the direct costs of the contract (such as labour costs, costs of materials, depreciation of plant used in the construction work), and
- a reasonable proportion of indirect costs (such as insurance costs, general design costs that are not attributable to specific contracts, and other general overheads)
- any other costs that are specifically chargeable to the customer under the terms of the contract.

Contract costs are recognised as an expense in the accounting period in which the work to which they relate is performed.

When can the outcome of a contract be estimated reliably?

Revenue and costs can only be recognised when the outcome of a contract can be estimated reliably. So when can the outcome be reliably estimated? This depends on the type of contract. IAS 11 identifies two types of contract:

- Fixed price contract: the contractor agrees to a fixed contract price (which is sometimes subject to cost escalation clauses).
- Cost plus contract: the contractor is reimbursed for allowable costs, plus a fee. The fee can either be a fixed amount or a percentage of the contract costs.

The **outcome of a fixed price contract** can be estimated reliably when:

- total contract revenue can be measured reliably
- it is probable that the economic benefits associated with the contract will flow to the entity
- both the costs to complete the contract and the stage of completion at the balance sheet date can be measured reliably
- the costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates.

The **outcome of a cost plus contract** can be estimated reliably when:

- it is probable that the economic benefits associated with the contract will flow to the entity
- the costs attributable to the contract can be clearly identified and measured reliably.

When the outcome of a contract cannot be estimated reliably:

- revenue should be recognised only to the extent of contract costs incurred that are expected to be recoverable
- contract costs should be recognised as an expense in the period in which they are incurred.

2.4 Measuring revenue, costs and profit or loss for a contract

To calculate the figures for contract revenue and contract costs that should be recognised as income or expense in a period, the following steps should be taken.

Step 1: Calculate the total profit expected on the contract.

	\$
Contract price	X
Minus costs to date	(X)
Estimated future costs	(X)
Total expected profit/(foreseeable loss)	X/(X)

If the contract in total shows a **loss**, the **whole loss** should be recognised as an expense **immediately**.

If the outcome of the contract is uncertain, possibly because it is too early in the life of the contract to make a reasonable estimate, there should be no profit and no loss for the contract. In Step 3 below, a nil profit is obtained by making revenue equal to the costs for the contract so far.

Step 2: Calculate the proportion of the work completed. An examination question will indicate which basis to use.

Step 3: The figures for revenue, expenses and profit or loss on the contract to date are normally calculated in the following order:

- first, a figure for revenue, and
- next, the figure for profit.
- Costs are then a balancing figure, equal to the difference between revenue and profit (or loss).

For a long-term contract, figures are calculated first of all for total revenue, total profit and total costs to date. The revenue, profit and costs for the current financial period are then calculated as the difference between:

- the total revenue, profit and costs to date, and
- the total revenue, profit and costs as at the end of the previous financial period.

	Year 1	Year 2	Year 3
Cumulative to year end	\$ X	\$ X	\$ X
Minus amount recognised as revenue, profit or costs in previous years	-	(X)	(X)
This year (balancing figure)	<u>X</u>	<u>X</u>	<u>X</u>

e

Example

The following are figures in relation to a long-term construction contract undertaken by Entity D. The figures are for the year ended 31 December Year 4.

	\$000
Contract price	1,500
Costs to date	1,000
Expected future costs	200
Work certified to date	1,100
Profits taken in earlier years	100
Revenue taken in earlier years	750

Required

Calculate the revenue, profit and costs for the contract for the year ended 31 December Year 4 on

- a sales basis
- a costs basis.

a

Answer

Workings

Step 1

Calculate the total profit expected on the contract.

	\$000	\$000
Contract price		1,500
Minus costs to date	(1,000)	
Estimated future costs	<u>(200)</u>	
Total expected costs for the contract		<u>(1,200)</u>
Total expected profit		<u>300</u>

Step 2

Calculate the proportion of work completed to date.

- Sales basis** = Work certified to date/Total sales value = $1,100/1,500 = 73.3\%$.
- Costs basis** = Costs to date/Total costs = $1,000/1,200 = 83.3\%$.

Step 3

Calculate the figures for revenue first, then profit, then costs as the balancing figure.

Revenue	Year ended 31 December Year 4		
		Sales basis	Costs basis
		\$000	\$000
Cumulative to year end	(work certified)	1,100	(1,500 × 83.3%)
Minus revenue recognised in previous years		(750)	(750)
Revenue this year (balancing figure)		<u>350</u>	<u>500</u>

Profit	Year ended 31 December Year 4		
		Sales basis	Costs basis
		\$000	\$000
Cumulative to year end	(300 × 73.3%)	220	(300 × 83.3%)
Minus recognised as profit in previous years		(100)	(100)
Profit this year (balancing figure)		<u>120</u>	<u>150</u>

Costs are then calculated as a balancing figure, the difference between revenue and profit.

Summary

	Year ended 31 December Year 4	
	Sales basis	Costs basis
	\$000	\$000
Revenue	350	500
Costs (balancing figure)	<u>(230)</u>	<u>(350)</u>
Profit	<u>120</u>	<u>150</u>

**Example**

Entity E has the same figures in relation to its construction contract for the year ended 31 December Year 4 as Entity D, except that estimated future costs are \$600,000.

Required

Calculate the figures for revenue, profit or loss and costs for the year ended 31 December Year 4 on a **costs basis**.

a**Answer****Workings***Step 1*

Calculate the total profit or loss expected on the contract.

	\$000
Contract price	1,500
Minus costs to date	(1,000)
Estimated future costs	<u>(600)</u>
Foreseeable loss	<u>(100)</u>

Step 2

Calculate the proportion of work completed to date.

Costs basis = Costs to date/Total costs = 1,000/1,600 = 62.5%

Step 3

Calculate the figures for revenue first, then profit or loss.

	Year ended 31 December Year 4
Revenue:	\$000
Cumulative to year end (1,500 × 62.5%)	938
Minus revenue recognised in income in previous years	<u>(750)</u>
Revenue this year (balancing figure)	<u>188</u>

	Year ended 31 December Year 4
Profit or loss:	\$000
Cumulative loss to current year end	(100)
Profit taken recognised in previous years	<u>100</u>
Loss to be reported this year	<u>(200)</u>

In order to arrive at the correct cumulative position of a loss of \$100,000, a loss of \$200,000 is recognised this year, because a profit of \$100,000 has been taken in the past.

Summary

Costs are calculated as the difference between revenue and the profit or loss. A loss should be added to revenue to calculate costs.

Year ended 31 December Year 4

	Costs basis
	\$000
Revenue	188
Costs (balancing figure)	<u>(388)</u>
Loss	<u>(200)</u>

2.5 Disclosure in the financial statements and amounts in the statement of financial position

IAS11 requires disclosure of the following information about construction contracts:

- The amount of contract revenue recognised as revenue in the period.
- The methods used to determine the amount of revenue and the stage of completion of contracts in progress (for example, the costs basis)
- For each contract in progress at the end of the reporting period, the total costs incurred and profits recognised (net of any losses recognised) to date

In relation to the statement of financial; position, IAS11 requires disclosure of the following items:

- The amount of advances received (amounts received from customers before the related work has been carried out).
- The amount of retentions (amounts not paid by the customer until the contract is completed to his satisfaction).
- The gross amount due from customers or the gross amount due to customers for contract work. This is calculated as follows:

	\$	\$
Costs incurred	X	X
Plus recognised profits to date/(or minus recognised losses)	X/(X)	X/(X)
Minus progress billings	<u>(X)</u>	(X)
= Inventories: Due from customers on contracts	X	—
Non-current liabilities: Due to customers on contracts	—	<u>(X)</u>

(Note: 'Progress billings' are the amounts that the customer has been invoiced already, during the progress of the contract to date.)

Note the calculations carefully: (1) Costs incurred (2) plus profits taken to date (3) minus amounts billed to the customer (4) equals inventory in the statement of financial position.

Receivables may also include **amounts recoverable on contracts** where progress billings exceed cash received from the customer. This amount may include retentions, disclosed above. For example, if progress billings have been \$3 million but the customer has paid only \$2.5 million of the amounts billed, there will be a receivable for \$0.5 million in the statement of financial position, for 'amounts recoverable on contracts'.



Example

An Appendix to IAS11 sets out the contract disclosures required, showing how the figures are obtained. The illustrative figures below are based on this Appendix. The figures relate to a construction company at the end of its first year of operations.

	A	B	C	D	E	Total
Contract revenue recognised	160	490	250	170	60	1,130
Contract expenses recognised	110	400	220	200	60	990
Expected losses recognised	—	—	—	30	20	50
Recognised profits less losses	50	90	30	(60)	(20)	90
Contract costs in the period	110	440	340	200	90	1,180
Contract costs recognised as expenses in the period	110	400	220	200	60	990
Contract costs relating to activity in future periods	0	40	120	0	30	190
Contract revenue (as above)	160	490	250	170	60	1,130
Progress billings	100	490	250	150	60	1,050
Unbilled contract revenue	60	-	-	20	-	80
Advances received from customers	0	35	15	0	10	60
Contract costs incurred	110	440	340	200	90	1,180
Recognised profits/(losses)	50	90	30	(60)	(20)	90
	160	530	370	140	70	1,270
Progress billings	100	490	250	150	60	1,050
Due from customers	60	40	120		10	230
Due to customers				(10)		(10)

The disclosures that should be made to comply with IAS11 are as follows:

(1)	Contract revenue recognised as revenue in the financial period	1,130
(2)	Contract costs incurred and recognised profits, less recognised losses, to date (= 1,180 + 90)	1,270
(3)	Advances received	60
(4)	Gross amount due from customers (= asset)	230
(5)	Gross amount due to customers (= liability)	(10)



Example

Continuing with the first example above (Entity D), you are now told that progress billings to date are \$1,300,000 and that cash has been received to date of \$900,000. In addition to the cash received against progress billings of \$900,000, \$100,000 has been received as advances for work not yet carried out.

Required

Calculate the figures for the statement of financial position on a costs basis as of 31 December Year 4.

a**Answer**

	\$000
<hr/>	
Receivables:	
Amounts recoverable on contracts (1,300 – 900)	400
Non-current liabilities:	
Due to customers on contracts (see workings)	50
Workings	\$000
<hr/>	
Costs incurred	1,000
Recognised profits/(losses)	250
Minus Progress billings	<u>(1,300)</u>
	<u>(50)</u>

Financial assets and financial liabilities

Contents

- 1 Financial instruments and the need for an accounting standard
- 2 Accounting for the issue of financial instruments
- 3 Recognition and measurement of financial instruments

Financial instruments and the need for an accounting standard

- Financial assets and financial liabilities
- The need for accounting standards on financial instruments
- Debt and equity
- Preference shares: debt or equity?
- Convertible bonds (convertible loan stock)
- Interest, dividends, gains and losses on financial instruments
- Financial instruments: disclosure requirements

1 Financial instruments and the need for an accounting standard

1.1 Financial assets and financial liabilities

Financial instruments are products or agreements that represent financial rights and obligations.

- There are short-term financial instruments, such as Treasury bills and bank bills, commercial paper, cash and financial derivative instruments, such as financial futures and options.
- There are also long-term financial instruments such as shares and bonds. 'Bonds' is a general term for long-term debt capital. This includes loan stock, debentures and medium-term notes.

A **financial asset** is:

- cash, or a contractual right to receive cash (for example, trade receivables), or
- a financial instrument giving the right to receive cash in the future. For example, shares give their holder the right to receive future dividends.

A **financial liability** is a contractual obligation to make one or more payments in the future. Examples include trade payables and long term borrowings.

This chapter deals with the issues relating to how both financial assets and financial liabilities should be reported in the financial statements.

1.2 The need for accounting standards on financial instruments

This chapter is concerned with long-term financial instruments. These are the subject of three accounting standards:

- IAS32: Financial instruments: Presentation
- IAS 39: Financial instruments: Recognition and measurement
- IFRS 7: Financial instruments: Disclosure

Since the 1980s, entities have made increasing use of many different kinds of sophisticated financial instruments. Part of the need for accounting standards arises from their complexity.

One problem is that some financial instruments combine elements of equity and elements of debt finance. Convertible bonds are an example: these are bonds issued by a company that can be converted, at the option of the bondholder, into a specified number of equity shares in the company at a future date. These are bonds that contain an equity element. They might therefore be referred to as **compound financial instruments**.

So should they be presented in the statement of financial position of the issuer as equity, or as debt, or as a combination of debt and equity? If they are to be presented as a combination of debt and equity, how should the debt and the equity elements be separated?

Before IAS 32 and IAS 39 were issued, some entities deliberately chose unusual and complex forms of finance in order to make their long term borrowings appear less than they really were.

Financial derivatives

A further problem has been the use of financial **derivatives** (such as options, futures and forward contracts). Derivatives are used by some non-bank companies either to 'hedge' exposures to financial risk or to speculate on changes in market prices in the financial markets. A financial derivative is a financial instrument with the following characteristics:

- The market value or fair value of a derivative changes in response to changes in the 'price' of an underlying item, such as a specified interest rate, stock market index or foreign exchange rate.
- To acquire a financial derivative requires either no initial investment or a fairly small initial investment.
- A financial derivative is a contract between buyer and seller that will be settled at a future date. Gains or losses on these contracts depend on changes in market prices up to that future date.

Because the market value or fair value of derivatives depends on movements in the market price of an underlying item, an entity that has purchased derivatives or entered into a derivatives contract can be exposed to significant **risk and uncertainty**, due to changes in their value. The risk is the potential for large gains or losses. The financial performance and position of an entity can change significantly in a very short time, due to movements in the value of its derivative instruments.

However, derivatives have little or no cost. Even if they represent significant assets and liabilities they may not be recognised in a traditional historical cost balance sheet (or they may be recognised at an amount that does not reflect their actual value). This means that users will not be aware of the true level of risk that the entity faces.

IAS 39 and IFRS 7 now require derivatives to be recognised in the statement of financial position and information about them to be disclosed in notes to the financial statements.

1.3 Debt and equity

A statement of financial position presents equity separately from debt (current or non-current liabilities). It is therefore essential to identify financial instruments as equity or debt.

IAS32 defines an **equity instrument** as 'any contract that evidences a residual interest in the interests of an entity after deducting all of its liabilities'.

Examples of equity instruments are:

- ordinary shares
- some types of preference shares
- share warrants. (Note: A share warrant gives its holder the right, without any obligation, to purchase new shares in the company at a future date, usually at a fixed price.)

Debt might be defined as financial liabilities of the issuer of the financial instrument.

Examples of financial liabilities are:

- bank loans
- bonds
- some types of preference shares.

IAS32: **Financial instruments: Presentation** states that a company that has issued financial instruments should classify them, or their component parts, as:

- a financial liability (or, in the case of certain instruments, a financial asset), or
- equity.

The general rule when trying to determine whether a financial instrument is debt or equity is that if there is a contractual obligation on one party to transfer cash or another asset to the other party then the instrument meets the definition of a liability. IAS 32 requires that this classification into debt or equity is according to the substance of the transaction. (This is another example of the 'substance over legal form' concept in financial reporting.)

1.4 Preference shares: debt or equity?

Preference shares are shares that are entitled to a payment of their dividend, usually a fixed amount each year, before the ordinary shareholders can be paid any dividend.

Preference shares may be:

- **redeemable:** redeemable shares are shares that the entity has an obligation to buy back (or the right to buy back) at a future date, and then cancel them
- **irredeemable:** these are shares that will not be bought back at any time in the future. They might also be called 'perpetual' preference shares
- **convertible:** these are preference shares that are convertible at a future date into another financial instrument, usually into ordinary equity shares of the entity.

Depending on their characteristics, preference shares issued by a company might be classified as:

- equity or
- a financial liability of the company, or
- a compound financial instrument containing elements of both financial liability and equity.

IAS32 states (in a guidance note) that the key factor for classifying preference shares is the extent to which the entity is obliged to make future payments to the preference shareholders.

- **Redeemable preference shares.** Since the entity will be required to redeem the shares, there is a future obligation. The redemption element of the shares is a financial liability.
- **Preference dividends** might be treated as a financial liability or as a deduction from equity, depending on whether the shares are cumulative or non-cumulative. With cumulative preference shares, any unpaid arrears of dividend accumulate, and must be paid before any dividends can be paid to ordinary equity shareholders. If the preference shares are non-cumulative, any unpaid preference dividends do not accumulate and are not payable. With cumulative preference shares, any arrears of dividend would be considered a financial liability.
- **Irredeemable non-cumulative preference shares** should be treated as equity, because the entity has no obligation to the shareholders that the shareholders have any right to enforce.

1.5 Convertible bonds (convertible loan stock)

Convertible bonds are financial instruments that give their holders the right to convert the bonds into a quantity of shares in the entity at a future date. Until the bonds are converted, the entity is obliged to pay interest. If the bonds are not converted into shares, they will remain as bonds until they are eventually redeemed at a specified maturity date.

IAS32 states that convertible bonds are a mixture of a bond and a share warrant or share option, and so have two component elements:

- a financial liability element, and
- an equity element.

(Note: A share option or share warrant is an instrument that gives its holder the right at a future date to acquire new equity shares in the issuer of the option or warrant.)

These two elements, financial liability and equity, should be recognised separately in the statement of financial position. The same principle applies to convertible preference shares.

1.6 Interest, dividends, gains and losses on financial instruments

IAS32 states that:

- interest, dividends, gains or losses relating to a financial liability should be recognised as an expense in profit or loss
- dividends paid to equity shareholders should be debited directly to equity (reducing the retained earnings).

Dividend payments to equity shareholders (the owners of the entity) are reported in the statement of changes in equity (SOCIE) and not in the statement of comprehensive income.

Preference dividend

When an entity pays a dividend on its preference shares, the dividend should be:

- treated as an expense in profit or loss, if the shares are a financial liability, or
- treated as a deduction from equity, if the shares are classified as equity.

If the preference dividend is treated as an expense, it is either:

- included within interest expenses, or
- shown as a separate item.

(IAS32 suggests that if there is a difference in tax allowances on interest payments and dividend payments, a separate presentation of the preference dividend expense would probably be more appropriate.)

1.7 Financial instruments: disclosure requirements

IFRS7: **Financial instruments: Disclosure** requires two types of disclosure about financial instruments, in order to allow users to evaluate:

- the significance of financial instruments for the entity's financial position and performance, and
- the nature and extent of the risks arising from the use of financial instruments during the period, and how the entity has managed those risks.

Disclosure of the impact on the entity's financial position and performance

IFRS7 contains a large amount of detail, but its main disclosure requirements relating to disclosure of the impact of financial instruments on the entity's financial performance and position are as follows.

In the statement of financial position or in notes:

- Categorisation of financial instruments in the statement of financial position or in the notes to the financial statements: (these categories are explained later)
- Amounts given as security in respect of financial liabilities.
- Details of any defaults on loans.

In the statement of comprehensive income, disclosures should include:

- Net gains or losses on each category of financial asset or liability
- Total interest income and total interest expense (calculated using the effective interest method) arising from financial instruments that are not in the category 'at fair value through profit or loss'
- Impairment losses for each class of financial asset.

Disclosure of the risks arising from the use of financial instruments

IFRS7 states that: 'An entity shall disclose information that enables users of its financial statements to evaluate the nature and extent of risks arising from financial instruments to which the entity is exposed at the end of the reporting period.' The perceived risks from using financial instruments include **credit risk**, **liquidity risk** and **market risk**. IFRS7 requires qualitative and quantitative disclosures about these risks.

Qualitative disclosures include, for each type of risk:

- the exposure to risks and how they arise
- the entity's objectives, policies and processes for managing those risks, and
- any changes to the above from the previous period.

Quantitative disclosures of risks should be made, according to the different types of risk.

Credit risk is defined as 'the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation'. The most obvious example of credit risk with financial instruments is the risk that a borrower or a deposit-taking institution (such as a bank) will fail to pay interest or will fail to repay the principal lent or deposited. Disclosures about credit risk should include:

- the maximum exposure to credit risk, without taking into account any assets held as security
- details of any assets held as security
- information about the credit quality of the financial assets
- an age analysis of financial assets which are 'past due' but not impaired (showing for how long the amounts owed are overdue)
- an analysis of financial assets which are 'impaired'.

Liquidity risk is defined as 'the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities'. In other words it is the risk

that the entity will be unable to pay what it owes when the payment is due for settlement. Disclosure is required of:

- a maturity analysis for financial liabilities showing the remaining contractual maturities (showing when the amounts owed are payable)
- how the liquidity risk relating to the payment of these liabilities is managed.

Market risk is defined as 'the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices'. For example, a company holding shares or bonds in other companies as an investment is exposed to market risk. Market risk is categorised into **currency risk**, **interest rate risk** and **other price risks**. The main disclosure requirement in IFRS7 relating to market risk is the provision of a sensitivity analysis for each category of market risk.

Accounting for the issue of financial instruments

- Issue of equity shares
- Bonus issue of shares
- Accounting for redeemable preference shares: amortised cost
- Accounting for fixed rate debt: amortised cost

2 Accounting for the issue of financial instruments

This section explains how to account for the issue of new financial instruments.

2.1 Issue of equity shares

When an entity issues new ordinary shares:

- the issued shares become a part of equity, and
- the entity receives cash from the issue, or possibly assets other than cash (for which a carrying value is determined).

The issue price of new equity shares is usually higher than their face value or nominal value. The difference between the nominal value of the shares and their issue price is accounted for as share premium, and credited to a share premium reserve. (This reserve is a part of equity).

Transaction costs of issuing new equity shares for cash should be debited directly to equity, net of any related tax benefit.

The costs of the issue, net of related tax benefit, are set against the share premium account. (If there is no share premium on the issue of the new shares, issue costs should be deducted from retained earnings). The book-keeping entries in the general ledger are as follows.

When a company issues new shares for cash, the entries would be as follows if there were no issue costs to account for:

- Debit: Bank account, with the actual amount of cash raised
- Credit: Share capital, with the nominal value of the shares issued
- Credit: Share premium, with the excess of the issue price of the shares over their nominal value.

However, when shares are issued, there are issue costs. The issue costs are an allowable expense for tax purposes. The costs of the share issue net of tax benefits should be set against the share premium (or against retained earnings if there is no share premium). In addition to the entries listed above, the following entries are also required.

- Credit: Bank account, with the cash expenditures for the share issue costs
- Debit: Share premium with issue costs less tax benefit

- Debit: Tax payable with the tax benefit.

e

Example

A company issues 200,000 shares of \$1 each at a price of \$2.50 per share. Issue costs are \$30,000 and the tax benefits associated with these costs will be \$10,000.

Required

Show how the share issue should be accounted for:

- if there were no issue costs and no associated tax benefits
- taking into consideration the share issue costs and associated tax benefits.

a

Answer

- The issue will raise \$500,000. **Ignoring share issue costs**, this would be accounted for as:

	Debit	Credit
	\$	\$
Share capital: (200,000 × \$1)		200,000
Share premium: (200,000 × \$1.50)		300,000
Cash	500,000	

- The issue costs minus associated tax benefits are \$20,000 (= £30,000 – \$10,000). Allowing for the share issue costs net of tax benefit, the transaction would be accounted for as follows:

	Debit	Credit
	\$	\$
Share capital: (200,000 × \$1)		200,000
Share premium: (200,000 × \$1.50) – \$20,000		280,000
Cash (\$500,000 – \$30,000)	470,000	
Tax (benefit)	10,000	

e

Exercise 1

The summary statement of financial position of Entity GH just prior to a new share issue is as follows.

	\$	\$
Assets		
Non-current assets		2,000,000
Current assets		
Inventories	56,000	
Receivables	102,000	
		158,000
Total assets		2,158,000

Equity and liabilities**Equity**

1,000,000 ordinary shares of \$0.50	500,000	
Share premium	240,000	
Retained earnings	<u>1,068,000</u>	1,808,000

Current liabilities

Trade payables	250,000	
Bank overdraft	<u>100,000</u>	350,000
Total equity and liabilities		<u>2,158,000</u>

Entity GH makes an issue of 250,000 new ordinary shares for cash, at \$3 per share. Share issue costs are \$40,000 and the related tax benefit is \$15,000.

Required

Prepare a summary statement of financial position for the company after the share issue.

2.2 Bonus issue of shares

A bonus issue of shares is the issue of new shares by an entity to its existing shareholders, at no cost to the shareholders and on a pro rata basis. For example, in a 1 for 4 bonus issue, existing shareholders would receive one new share in the company for every four shares they currently hold. The entity does not raise any cash. In a bonus issue, the company issues the shares by converting some reserves into share capital. The reserves converted into share capital might be share premium or retained earnings.

If the entity has a sufficiently large share premium account, the nominal value of the new shares is deducted from share premium.

- Credit: Share capital (nominal value of new shares issued)
- Debit: Share premium

If the nominal value of the new shares issued exceeds the balance on the share premium account, the excess amount should be deducted from retained earnings.

**Example**

Entity FG has 24 million ordinary shares of \$0.50 each in issue. The balance on the share premium account is \$14 million. The entity makes a 1 for 3 bonus issue.

Required

Show the accounting treatment of this bonus issue.

a**Answer**

- 8 million new shares will be issued ($24 \text{ million} \times 1/3$).
- The issued share capital will increase by \$4 million (8 million shares \times \$0.50 nominal value per share), from \$12 million to \$16 million ($32 \text{ million} \times \0.50).
- The share premium will be reduced by \$4 million to \$10 million.

	Before the bonus issue	After the bonus issue
	\$ million	\$ million
Share capital	12	16
Share premium	14	10
	<u>26</u>	<u>26</u>

2.3 Accounting for redeemable preference shares: amortised cost

When an entity issues redeemable preference shares, it is under an obligation to buy back the shares at a future date. This obligation to redeem the shares is a financial liability.

Accounting for the issue and redemption of redeemable shares, under IAS32 and IAS39, is based on the following principles.

- An entity might issue redeemable shares at a premium to their nominal value (par value).
- The shares will eventually be redeemed either at their nominal value (par value) or at a premium to par value.
- For the period between the issue of the shares and their redemption, there is a finance cost to the entity. This finance cost consists of two elements:
 - the dividends paid throughout the ‘life’ of the shares, between issue and redemption, and
 - the difference between the eventual cost of redemption and the amount raised from the original share issue. This difference is an addition to cost if the redemption cost exceeds the amount of the original issue. It is a negative cost if the amount payable at redemption is less than the amount of the original share issue.

The full finance cost or finance charge over the life of the financial instrument should be allocated to each year over the life of the shares so as to give a **constant effective annual rate of interest**.

When a financial liability is recognised initially, it should be measured at its fair value minus the issue costs. For example, if redeemable preference shares are regarded as a financial liability, and the shares are issued for \$1,000,000 with \$60,000 issue costs, the liability should be recorded initially as \$940,000 ($= \$1,000,000 - \$60,000$).

In each subsequent year, the **value of the financial liability in the statement of financial position** at the end of the year is measured at **amortised cost**. Amortised cost is:

- the value of the liability at the beginning of the year,
- plus the interest cost on this value, calculated at the (constant) effective annual rate of interest,
- minus any amounts of the liability paid during the course of the year. In the case of redeemable preference shares as a financial liability, amounts paid are:
 - dividends and
 - the payment of the redemption value of the shares at their redemption date.

The interest cost each year is an expense, within profit or loss for the year.

These principles might seem confusing. An example should help to explain them more clearly.



Example

A company issues 2 million redeemable preference shares of \$1 each that will be redeemed after five years. The holders of the preference shares are entitled to an annual dividend of 5%. The issue price was at par and issue costs were \$100,000.

The shares will be redeemed at par after five years, and redemption costs will be \$34,000.

It has been calculated that the effective annual interest rate for this financial liability is 6.5% per annum.

Required

Outline the treatment of the shares over the 5-year period.



Answer

The redeemable preference shares are a financial liability, within the definition guidelines of IAS32. When the shares are issued, the original liability in the statement of financial position is \$1,900,000 (\$2,000,000 less issue costs of \$100,000).

When the shares are redeemed, the company will pay $\$2,000,000 + \$34,000 = \$2,034,000$.

The cost of redeeming the shares is therefore greater than the initial liability by \$134,000. Annual preference dividends are \$100,000 (= \$2 million × 5%). The total finance charge over the life of the shares, including the dividend payments, is therefore:

	\$
Excess of the redemption cost over the initial liability	134,000
Dividends payable over the life of the liability (5 years × \$100,000)	500,000
	634,000
Total finance charge	634,000

This total finance charge is allocated to each of the five years in order to give a constant annual rate of interest on the outstanding liability. The liability changes each year. In this example, the effective annual interest rate is 6.5%.

The preference shares are therefore accounted for as follows:

	Liability at beginning of year	Finance charge at 6.5%	Dividend paid	Capital repayment and costs	Outstanding liability at end of year
	\$	\$	\$	\$	\$
Year 1	1,900,000	123,500	(100,000)		1,923,500
Year 2	1,923,500	125,028	(100,000)		1,948,528
Year 3	1,948,528	126,654	(100,000)		1,975,182
Year 4	1,975,182	128,387	(100,000)		2,003,569
Year 5	2,003,569	130,232	(100,000)	(2,034,000)	(199)
		633,801			

Here, there is a rounding error of \$199 in the figures.

The total finance charges over the five years are \$633,801. Allowing for the rounding error, this is the \$634,000 calculated earlier. The total finance charge has been allocated between the five years.

In the financial statements of the company:

- The outstanding liability in the statement of financial position each year is the figure in the right hand column of the table above. This is the amortised cost of the financial instrument. Ignoring the rounding error, this will be \$0 after five years.
- The liability can be divided into a current liability (amount repayable within 12 months) and a long-term liability. This amount repayable each year is calculated by taking the difference between the outstanding liability at the end of the current year and the end of the next year.
- The finance charge each year (interest cost) is the amount in the finance charge column. This is a charge against profit.
- Debit: Income statement
- Credit: Financial liability (= addition to the liability).
- The **cash dividend payment** each year is accounted for as follows:
 - Credit: Bank \$100,000
 - Debit: Financial liability (= a **reduction in the liability in the year**).

2.4 Accounting for fixed rate debt: amortised cost

Straight fixed interest rate debt instruments are accounted for in the same way, as financial liabilities.

- The initial liability is the issue price of the debt instrument minus any issue costs.
- The redemption cost of the debt instrument is its redemption price plus any redemption costs.
- The total finance charge over the life of the instrument is the interest payable, plus or minus the difference between the initial liability and the redemption cost. This difference is subtracted from the finance charge if the initial cost is higher than the redemption cost, and added if the initial cost is lower than the redemption cost.
- A finance charge is calculated each year, based on an effective annual interest rate for the full term of the instrument.
- The outstanding liability at the end of each year is calculated as:

	\$
Outstanding liability at the beginning of the year	A
Plus: Finance charge	B
	A + B
Minus: Interest paid	(C)
Equals: Outstanding liability at the end of the year	A + B – C



Example

A company issues \$10 million of 6% bonds at a price of 100.50 and issue costs are \$50,000. The bonds are redeemable after four years at a price of 104.00 and redemption costs will be \$44,000. (Note: A price of 104.00 means that the price is \$104 for each \$100 nominal value of bonds.)

It has been calculated that the effective annual interest rate for this financial instrument is 7%.

Required

Show how the bonds should be accounted for in each of the four years.



Answer

The income from issuing the bonds is the money raised minus the issue costs.

The initial liability is therefore $(\$10 \text{ million} \times 100.50/100) - \$50,000 = \$10,000,000$.

When the bonds are redeemed, the company will pay the redemption price of 104 plus the redemption costs of \$44,000. The total redemption cost of the bonds is $(\$10 \text{ million} \times 104/100) + \$44,000 = \$10,444,000$.

The cost of redeeming the bonds is therefore more than the initial liability, by \$444,000. The total finance charge over the life of the bonds is therefore:

	\$
Difference between redemption cost and initial liability	444,000
Interest paid (\$10 million × 6% × 4 years)	2,400,000
Total finance charge	2,844,000

This total finance charge is allocated to each of the four years in order to give a constant annual rate of interest on the outstanding liability. The liability changes each year. In this example, the effective annual interest rate is 7%.

The preference shares are therefore accounted for as follows:

	Liability at beginning of year	Finance charge at 7%	Interest paid	Capital repayment and costs	Outstanding liability at end of year
	\$	\$	\$	\$	\$
Year 1	10,000,000	700,000	(600,000)		10,100,000
Year 2	10,100,000	707,000	(600,000)		10,207,000
Year 3	10,207,000	714,490	(600,000)		10,321,490
Year 4	10,321,490	722,504	(600,000)	(10,444,000)	(6)
		2,843,994			

The outstanding liability at the end of each year is the figure in the right hand column of the table. This is the **amortised cost** of the debt.

The finance charge for each year is shown in the finance charge column.

Here there is a rounding error of \$6 in the figures. The total finance charge over the four years is shown as \$2,843,994 in the table, instead of \$2,844,000. Allowing for the rounding error, this is the \$2,844,000 calculated earlier, but the charge total has been allocated between the four years.

Ignoring the rounding error, the outstanding liability at the end of Year 4 should be \$0.

2.5 Accounting for convertible bonds

When convertible bonds are issued they are shown in the statement of financial position partly as debt finance and partly as equity finance. The question is how to determine the amount of the issue price that is debt and the amount that is equity.

The method to use is to calculate the equity element as the residual after determining the present value of the debt element:

- The present value of the interest payments and the redemption value of the convertible is found using a market interest rate for similar debt finance which is not convertible (normally a higher interest rate as there is no conversion element).
- Compare this present value to the proceeds of the bond issue to find the residual equity element.

e

Example

A company issues \$10 million of 6% convertible bonds at par. The bonds are redeemable at par after four years or can be converted at any time up to that date into 20 ordinary shares for every \$100 of bonds. The market rate of interest for similar debt which is not convertible is 8%.

Required

Show how the bonds should be recorded on issue in the statement of financial position.

a

Answer

Calculate the present value of debt element using the prevailing market interest rate of 8%.

	\$
Present value of interest payments	
$10,000,000 \times 6\% \times \text{discount factor at } 8\% \text{ for time periods } 1 \text{ to } 4$	
$= \$600,000 \times 3.312$	1,987,200
Present value of principal payable at the end of four years	
$\$10,000,000 \times \text{discount factor at } 8\% \text{ at time } 4$	
$\$10,000,000 \times 0.735$	<u>7,350,000</u>
Value of debt element	9,337,200
Total proceeds	<u>10,000,000</u>
Value of equity element (residual)	<u>662,800</u>

In the statement of financial position these figures would appear as:

	\$
Non-current liabilities	
Convertible bonds	9,337,200
Equity	
Share capital	662,800

Recognition and measurement of financial instruments

- Recognition
- Initial measurement
- Classification
- Subsequent measurement
- Treatment of gains and losses on subsequent measurement
- Summary: measurement and gains or losses on re-measurement

3 Recognition and measurement of financial instruments

3.1 Recognition

A financial asset or a financial liability should be recognised in the statement of financial position when the reporting entity becomes a party to the contractual provisions of the instrument.

This is different from the normal recognition criteria for an asset or a liability. The IASB Framework states that an item should be recognised when there is a probable inflow or outflow of economic benefits.

The effect of this is that all financial assets and liabilities, including derivatives, are recognized in the statement of financial position, even if they have no cost.

For example, an entity takes out a forward contract to buy a specified amount of foreign currency at a fixed price on a future date. (This contract is a type of financial derivative.) The entity recognises the contract on the commitment date, when the contract is made, instead of waiting until the foreign currency is actually purchased.

3.2 Initial measurement

A financial asset or liability should initially be measured at **cost**.

This is the fair value of the consideration given or received.

3.3 Classification

Classification of financial assets

Financial assets are investments in financial instruments and receivables. After initial recognition, financial assets are classified into four categories. The way in which they are measured depends on the category in which they are placed. The four categories or classifications are:

- Financial assets at fair value through profit or loss

- Held-to-maturity investments
- Loans and receivables
- Available-for-sale financial assets

Financial assets at fair value through profit or loss

These consist of:

- financial instruments **held for trading**; and
- all derivatives.

A financial instrument is held for trading if it is:

- acquired principally for the purpose of selling or repurchasing it in the near future; and
- part of a portfolio of instruments that are managed together.

An entity can choose to treat other financial instruments as 'at fair value through profit or loss', provided that they meet certain criteria.

Equity instruments that do not have a quoted price in an active market cannot be included in this category.

Held-to-maturity investments

Held-to-maturity investments are financial assets

- with fixed or determinable payments
- and fixed maturity
- that an entity has the positive intent and ability to hold to maturity.

Loan stock, redeemable preference shares and bonds issued by other entities would fall into this category, provided that the entity plans to hold the investment to the end of its term (for example, until the financial instrument is redeemable). The entity must also expect to have sufficient cash or other resources available, so that it will not be forced to sell the investment before the end of its term.

Loans and receivables

These are financial assets

- with fixed or determinable payments
- that are not quoted in an active market
- that the entity does not intend to sell in the near future (this would mean that they are held for trading)
- and the entity expects to recover the full amount.

This category could include loans made to other entities, trade receivables and investments in bonds and other forms of debt, provided that the other conditions are met.

Available-for-sale financial assets

These are any other financial assets that do not fall into any of the three categories above. In addition, an entity can designate an asset as available-for-sale when it is first recognised.

Classification of financial liabilities

Financial liabilities basically fall into two categories:

- financial liabilities 'at fair value through profit or loss' (explained above); and
- other financial liabilities.

3.4 Subsequent measurement of financial instruments

Subsequent measurement of financial assets

After initial recognition, financial assets are all measured at fair value, with the following exceptions:

- Held-to-maturity investments. These are measured at **amortised cost** using the effective interest rate. Amortised cost was explained earlier in the chapter.
- Loans and receivables. These are also measured at **amortised cost** using the effective interest rate. (However, there is no requirement to discount trade receivables to a present value if they are a current asset.)
- Investments in equity instruments that do not have a quoted price in an active market and whose fair value cannot be reliably measured. Equity instruments whose fair value cannot be reliably measured are measured at **cost**.

Subsequent measurement of financial liabilities

After initial recognition, **financial liabilities** at fair value through profit or loss are measured at **fair value**.

Other financial liabilities are measured at **amortised cost**.

3.5 Treatment of gains and losses on subsequent measurement

When financial assets or liabilities are re-measured, there will be a gain or loss, which must be accounted for.

The treatment of any gain or loss depends on the category of the financial asset or liability.

- Financial assets and financial liabilities at fair value through profit and loss. Changes in fair value (gains and losses) are recognised in profit or loss.
- **Available-for-sale financial assets**. These are also measured at fair value, but changes in fair value are recognised as 'other comprehensive income', not in profit or loss. Dividends and interest received from these assets are recognised as income in profit or loss. When an available-for-sale financial asset is sold, the

total gain or loss recognised in other comprehensive income to date should be re-classified. When this happens a re-classification adjustment is required, and the total gain (or loss) is reported in profit or loss for the period in which the disposal occurs, and to prevent double-counting of the gain, there should be a matching deduction in 'other comprehensive income'.

- **Assets and liabilities measured at amortised cost:** Changes in value (which might occur if there is a change in interest) are recognised in profit or loss.

3.6 Summary: measurement and gains or losses on re-measurement

	Measurement	Gains and losses/ changes in value
Financial assets and liabilities at fair value through profit or loss	Fair value	Recognised in profit or loss
Held-to-maturity investments	Amortised cost	Recognised in profit or loss
Loans and receivables	Amortised cost	Recognised in profit or loss
Available-for-sale financial assets	Fair value	Recognised in other comprehensive income, until the asset is sold. On sale, total gains are re-classified as profit or loss.
Other financial liabilities	Amortised cost	Recognised in profit or loss

Measurement of financial liabilities in the examination

You might be given an examination question that asks specifically about the measurement/valuation of financial assets or liabilities. It is also quite possible that you will be given a question in which the measurement of a financial liability is just one item to be dealt with.

For example, you might be asked to account for a financial liability that will be redeemed at a large premium. Loans are valued at amortised cost and any changes in value are recognised in profit or loss. You might be required to re-measure the amount of a loan and the amount to charge in finance costs for the year.



Example

It is 30 June Year 2. A company issued a loan note on 1 July Year 1. The loan note is for \$10 million and interest is payable at a coupon rate of 4%. It is redeemable on 30 June Year 7 at a large premium. The large premium on redemption is to compensate the lender for the fact that the coupon rate of interest is very low. It has been calculated that the effective annual rate of interest, allowing for the premium on redemption, is 6%.

A trial balance at 30 June Year 2 includes the following balances:

	Debit	Credit
	\$	\$
4% loan note		10,000,000
Loan interest paid	400,000	

Required

State the amount at which the loan note should be stated in the statement of financial position as at 30 June Year 2.

State the amount of the finance cost for the loan note to include in profit or loss for the year to 30 June Year 2.

a

Answer

The loan note should be valued at amortised cost. The actual interest paid was \$400,000 but the effective interest rate is 6%. Since the loan note was only issued on 1 July Year 1, the calculation of the amortised cost of the loan is as follows:

	Liability at beginning of year	Finance charge at 6%	Interest paid	Outstanding liability at end of year
	\$	\$	\$	\$
Year to 30 June Year 2	10,000,000	600,000	(400,000)	10,200,000

The loan should be stated in the statement of financial position at 30 June Year 2 as \$10,200,000.

The finance charge for the year (an expense in profit or loss) should be \$600,000.

Contents

- 1 Types of lease
- 2 Accounting for a finance lease
- 3 Accounting for an operating lease
- 4 Leases: disclosure requirements

Types of lease

- Debt and equity
- Finance leases and operating leases
- Leases of land and buildings

1 Types of lease

1.1 The characteristics of a lease

A lease is a way of getting the use of a non-current asset, such as a machine, without purchasing it outright. Entity X (the 'lessor') owns the asset and hires it out to Entity Y (the 'lessee'). The terms of the lease give the lessee the right to use the asset for a specified period of time.

For example, Grey Sky Airways might lease an aeroplane from Big Wings Aero Company (BWA). Under the terms of the lease agreement, Grey Sky may agree to pay a fixed annual rental of \$1,000,000 for the exclusive use of the aeroplane for a period of eight years. Grey Sky Airways is the lessee, who uses the aeroplane. BWA is the lessor, who receives the annual rental payments. BWA is the legal owner of the aeroplane, even though Grey Sky has exclusive use of it during the term of the lease.

The lease agreement may also provide for the purchase of the aeroplane by Grey Sky from BWA, at the end of the lease agreement.

Similarly, Small Printing Company (SPC) may lease a photocopier machine from Office Metal Supplies (OMS) and under the terms of the lease, SPC may agree to pay \$300 each month for the exclusive use of the photocopier, for a period of one year. SPC is the lessee, and OMS is the lessor and legal owner of the photocopier.

A lease is defined in IAS17 as: 'an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time.'

1.2 Finance leases and operating leases

IAS17 **Leases** deals with the accounting treatment of leased assets in the financial statements of lessees and lessors. Under IAS17 **Leases** there are two types of lease:

- finance leases, and
- operating leases.

Each type of lease is accounted for in a different way. The terms of the lease agreement determine the type of lease.

A **finance lease** is a lease that transfers substantially all the risks and rewards of ownership to the lessee. This means that the lessee is responsible for 'risks' such as insuring and maintaining the asset but also has the 'rewards' of ownership, which come from using the asset to generate revenue.

An **operating lease** is defined in IAS17 as a lease other than a finance lease.

Identifying a finance lease

IAS17 gives some guidance on how leases should be classified, by giving examples of situations that would normally lead to a lease being classified as a finance lease. A lease will normally be a finance lease in any of the following circumstances.

- At the end of the term of the lease, the legal ownership of the asset will be transferred from the lessor to the lessee, under the terms of the lease agreement.
- The lessee has the option at a future date to purchase the asset from the lessor, and the agreed purchase price is substantially lower than the expected fair value of the asset at the date the option to buy can be exercised. (In this situation, it is therefore probable that the lessee will exercise the option to buy the asset.)
- The term of the lease is for a major part of the expected economic life of the asset.
- At the beginning of the lease, the present value of all the future lease payments amounts to substantially all of the fair value of the leased asset, or more.
- The leased asset is of such a specialised nature that it can only be used by the lessee (without the need for a major modification).

In all these situations, it can normally be concluded that substantially all the risks and rewards incidental to ownership are transferred to the lessee.



Example

An entity leases an asset. The lease is for three years with payments of \$5,000 annually. The fair value of the asset is \$13,000 and the present value of the minimum lease payments is \$12,886. The useful life of the asset is 3 years and the entity is responsible for maintaining and insuring the asset.

This lease is a finance lease.

- The present value of the minimum lease payments is 99% (substantially all) of the fair value of the leased asset.
- The lease is for the whole of the useful life of the asset.
- The lessee is responsible for maintaining and insuring the asset.

The substance of the lease agreement is that the lessee holds the asset. The lease is effectively a financing arrangement.

1.3 Leases of land and buildings

Under IAS17 a lease of land and buildings should be split into its separate parts. There is a lease on the land and a different lease on the building. The lease

payments should therefore be divided between payments on the land and payments on the building.

- Because **land** has an infinite life, it is highly unlikely that the risks and rewards of ownership will be transferred to the lessee. Therefore the land element of such a lease will normally be classified as an operating lease.
- Whether the **buildings** element of the lease is classified as a finance lease or an operating lease will depend on the terms of the lease.

Accounting for a finance lease

- Substance over form
- Finance leases in the financial statements of the lessee
- Calculating and allocating finance charges (interest)
- Lease payments made in arrears
- Lease payments made in advance
- Splitting the year end lease liability: current and non-current liability
- Finance leases in the financial statements of the lessor

2 Accounting for a finance lease

2.1 Substance over form

Accounting for finance leases is based on the concept of 'substance over form'. This is the concept that transactions and items should be accounted for according to their economic substance, rather than their legal form.

The legal form of a finance lease is that the lessor is the legal owner of the leased asset. This might suggest that the lessor should account for the leased asset as a non-current asset in his statement of financial position. The lessee is not the legal owner of the asset, and rents it from the lessor. This suggests that the lease rental payments should be treated as an expense within profit or loss each year.

This is not how finance leases are accounted for, however, because this does not represent the economic substance of a finance lease.

The economic substance of a finance lease is that the lessee in effect has all the benefits and costs associated with ownership of the asset. IAS17 therefore states that an asset leased under a finance lease arrangement should be accounted for by the lessee as a non-current asset.

The lessor has transferred the risks and rewards of ownership of the leased asset to the lessee. Therefore the **lessee** records the asset in his financial statements as an item of property, plant and equipment. This reflects the underlying **substance** of the arrangement whereby, even if a legal title does not pass to the lessee, he has use of the asset **over its useful life**.

For the same reason, in the case of finance leases an asset should **not** be accounted for by the **lessor** as a non-current asset.

The effect of classifying a lease incorrectly

If a finance lease is treated as an operating lease, the financial statements do not fairly present the financial position of the entity:

- The leased asset is not recognised in the statement of financial position, even though the substance of the lease is that the entity owns it.
- The liability for the lease payments is not recognised in the statement of financial position.

Therefore both assets and liabilities are understated. The lease becomes a form of 'off balance sheet finance', hidden from the users of the financial statements. The entity's (lessee's) liabilities can appear to be much lower than they actually are.

Classifying a lease incorrectly affects several key performance measures, including return on capital employed and gearing. (These performance measures are explained in a later chapter.) The entity appears to generate a better return on its assets than it really does and to be a less risky investment than it really is.

2.2 Finance leases in the financial statements of the lessee

At the start of the lease

At the start of a finance lease, the lessee should record the leased asset in his accounts as a non-current asset 'at cost'. This is the lower of:

- the fair value of the asset and
- the present value of the minimum lease payments. (These are the minimum payments that the lessee has agreed to pay, under the terms of the lease agreement.)

The fair value of the asset is the cash price had it been purchased outright. The present value of the minimum lease payments should be given to you in an examination question, but could be calculated using discounting techniques.

The corresponding double entry is to create a liability for the finance lease obligation. This is the 'capital amount' that the lessee will have to pay back to the lessor over the term of the lease.

- Debit: Property, plant and machinery – (at cost)
- Credit: Liabilities: finance lease obligations

During the term of the lease

During the term of the lease, the leased asset is accounted for as a tangible non-current asset. It is depreciated over the shorter of:

- its expected useful life, and
- the term of the lease.

The leased asset is included in the statement of financial position at cost minus accumulated depreciation, and the annual depreciation cost is an expense in profit or loss.

The rental payments by the lessee to the lessor consist of two elements:

- a finance charge (interest charge) on the liability to the lessor, and
- a partial repayment of the liability (the finance lease obligation).

The finance charge is treated as a finance cost in profit or loss for the period. The partial repayment of the lease obligation reduces the amount of the liability that remains unpaid.

In the statement of comprehensive income of the lessee, the costs associated with an asset held under a finance lease arrangement (and included in profit or loss each year) are therefore a depreciation charge plus a finance charge.

Lease payments: interest charge and partial repayment of the liability

The lease payments each year are divided into a finance charge and a partial repayment of the liability for the finance lease obligation.

	\$
Total lease payment in the financial period	P
Minus: finance charge (interest charge)	I
Equals: Partial repayment of the liability for the finance lease obligation	<u>(P - I)</u>

The remaining liability for the finance lease obligation is calculated each year as follows:

	\$
Liability for the finance lease obligation at the start of the year	L
Plus: Finance charge (interest charge)	I
Minus: Total lease payment in the financial period	<u>(P)</u>
Equals: Partial repayment of the liability for the finance lease obligation	<u>(L + I - P)</u>

Lease payment table

For the purpose of calculations in answering an examination question on finance leases, you should use a lease payment table to record the change each year in the liability for the finance lease obligation. The table has one line for each financial period, and is used to record $L + I - P$. By the end of the finance lease period, the remaining liability for the finance lease obligation should be reduced to \$0 (allowing perhaps for a rounding error in the calculations).

For example, suppose that an entity has entered into a three-year finance lease on a machine on 1 January Year 1, and the machine has a fair value of \$21,000. The annual lease payments are \$9,000, payable at the end of each year. In the lease payment table, you should record the fair value as the initial liability in the 'opening balance' column for Year 1.

Year ended 31 December	Lease obligation: Opening balance	Interest	Lease payment	Lease obligation: Closing balance
	\$	\$	\$	\$
Year 1	21,000			
Year 2				
Year 3				

During each year, the lessee makes one or more lease payments. The payment is recorded in the ledger accounted as follows.

- Debit: Liabilities: Finance lease obligations
- Credit: Cash

In this example, the annual lease payment is \$9,000 on 31 December each year. The payment each year should be entered into the 'lease payment' column in the table as a negative figure.

Year ended 31 December	Lease obligation: Opening balance	Interest	Lease payment	Lease obligation: Closing balance
	\$	\$	\$	\$
Year 1	21,000		(9,000)	
Year 2				
Year 3				

At the end of each year, the lessee must:

- make a charge for depreciation of the leased asset, and
- calculate the finance charge in the lease rental payment.

Depreciation. The asset should be depreciated over the shorter of its useful life and the lease term:

- Debit: Income statement; depreciation expense
- Credit: Property, plant and machinery – accumulated depreciation

Finance charge. The finance charge is added to the liability for the finance lease obligation, and is also an expense in profit or loss for the year.

- Debit: Income statement: interest expense
- Credit: Liabilities: Finance lease obligations

The total finance charge

The total finance charge over the term of a finance lease is the difference between the total amount of lease payments and the initial cost of the leased asset.

			In the example
Total lease payments over the term of the lease agreement	\$ TP	(3 years × \$9,000)	\$ 27,000
Initial cost	<u>C</u>		<u>(21,000)</u>
Total finance charge over the term of the lease agreement	<u>(TP – C)</u>		<u>6,000</u>

This total finance charge over the term of the lease is allocated to each financial period covered by the lease agreement.

Continuing with the example, suppose that the total finance charge of \$6,000 is allocated \$3,000 to Year 1, \$2,000 to Year 2 and \$1,000 to Year 3.

For Year 1, the finance charge of \$3,000 is entered into the 'interest' column of the lease payment table.

The table now appears as follows, showing that the closing balance for the liability (obligation for the finance lease) is \$15,000 at the end of Year 1. This then becomes the opening balance at the start of Year 2.

Year ended 31 December	Opening balance (OB)	Interest (I)	Lease payment (P)	Closing balance (CB = OB + I – P)
	\$	\$	\$	\$
Year 1	21,000	3,000	(9,000)	15,000
Year 2	15,000			
Year 3				

Completing the lease payment table for the whole of the lease term, you should find that the remaining liability at the end of the lease is \$0.

Year ended 31 December	Opening balance (OB)	Interest (I)	Lease payment (P)	Closing balance (CB = OB + I – P)
	\$	\$	\$	\$
Year 1	21,000	3,000	(9,000)	15,000
Year 2	15,000	2,000	(9,000)	8,000
Year 3	8,000	1,000	(9,000)	0

The rules about presenting the information about finance leases in the financial statements of a lessee are described later in the chapter.

2.3 Calculating and allocating finance charges (interest)

The total finance charge for a leased asset (finance lease) is allocated to the financial periods over the term of the lease period. This allocation of the total charge between accounting periods must be done in such a way as to reflect a constant rate of interest on the amount due to the lessor. This means that as the lease liability

decreases at each year-end, the interest charge for the next year will be lower than it was for the previous year.

There are two acceptable methods of allocating the total finance charge between accounting periods:

- the actuarial method, or
- the sum-of-the-digits method.

The actuarial method is the method that will be used in the examination.

Actuarial method

The **actuarial method** uses discounting arithmetic to establish the interest rate that is implicit in the lease. This interest rate is then applied to the opening balance of the lease liability at the start of each period, in order to calculate the finance charge.

	\$
Liability for the finance lease obligation at the start of the year	L
Interest rate in the lease	r%
Interest charge for the year	L × r%

2.4 Lease payments made in arrears

The following example shows how the total finance charge for a finance lease is allocated between the financial years using the two methods of allocation. In this example the annual lease payments are made in arrears, at the **end** of each period.



Example

The fair value of an asset, leased under a finance lease commencing on 1 January Year 1 is \$12,886. The lease is for three years with payments of \$5,000 annually on 31 December Year 1, Year 2 and Year 3. The interest rate implicit in the lease is 8%.

Required

- (a) Calculate the finance charges for Years 1, 2 and 3 under the actuarial method.
- (b) Show the closing lease liability at the end of each year.



Answer

	\$
Total lease payments (3 × \$5,000)	15,000
Minus: Cash price of the asset	(12,886)
Total finance charge	<div style="border-top: 1px solid black; border-bottom: 3px double black; display: inline-block; width: 100px;"></div> 2,114

The lease payment table is constructed as follows.

Year ended 31 December	Opening balance (OB)	Interest at 8% (I = OB × 8%)	Lease payment (P)	Closing balance (CB = OB + I – P)
	\$	\$	\$	\$
Year 1	12,886	1,031	(5,000)	8,917
Year 2	8,917	713	(5,000)	4,630
Year 3	4,630	370	(5,000)	–

2.5 Lease payments made in advance

When the lease payments for a finance lease are made at the **start** of each period, the finance lease obligation is paid in full with the final lease payment at the start of the final period. This means that no funds are ‘borrowed’ from the lessor in the final period, and there is no interest charge in profit or loss for that period.

For example, if the lease payments for a three-year finance lease are paid annually in advance, at the beginning of Year 1, Year 2 and Year 3, the obligation is paid off at the beginning of Year 3. There is an interest charge in Year 1 and Year 2, but not in Year 3.

The opening liability for the finance lease obligation is reduced by the lease payment at the beginning of the year, and the interest charge is applied to the remaining balance. A lease payment table should be prepared as follows.

Year ended	Opening balance (OB)	Lease payment P	Capital outstanding C = OB – P	Interest I	Closing balance (C + I)
	\$	\$	\$	\$	\$
Year 1					
Year 2					
Year 3					

This will be illustrated with the next example.

2.6 Splitting the year-end lease liability: current and non-current liability

In the statement of financial position of the lessee, the total liability for the finance lease obligation will consist of:

- the capital balance outstanding (= the remaining liability for the finance lease obligation), plus
- any interest accrued but not yet paid at the end of the reporting period.

This total liability in the statement of financial position must be divided between:

- the current liability (amount payable within the next 12 months), and

- the non-current liability.

The **current liability** consists of:

- any interest accrued but not yet paid at the end of the reporting period (because this will be paid within the next 12 months), plus
- the amount of the 'capital' liability for the finance lease obligation that will be repaid in the next 12 months.

From the lease payment table:

- the **non-current liability** is the 'capital balance' outstanding in one year's time (which can be obtained from the figure in 'capital outstanding' column for the end of the next year)
- the amount of the 'capital' liability that is a **current liability** is the difference between the figure in the 'capital outstanding' column for the end of the current year and for the end of the next year.

These points will be illustrated with an example.



Example

The fair value of an asset, leased under a finance lease commencing on 1 January Year 1 is \$10,000. The lease is for three years with payments of \$4,021 annually on 1 January Year 1, Year 2 and Year 3. The interest rate implicit in the lease is 22.25%.

Required

Complete the lease payment table for all three years 1 to 3, and calculate the current liability and the non-current liability at 31 December Year 1 under the actuarial method.



Answer

	\$
Total lease payments (3 × \$4,021)	12,063
Minus: Cash price of the asset	<u>(10,000)</u>
Total finance charge	<u>2,063</u>

Actuarial method

Year ended 31 December	Opening balance (OB)	Lease payment (P)	Capital outstanding (C = OB – P)	Interest at 22.25% I = C × 22.5%	Closing balance CB = C + I
	\$	\$	\$	\$	\$
Year 1	10,000	(4,021)	5,979	1,330	7,309
Year 2	7,309	(4,021)	3,288	733 (rounded)	4,021
Year 3	4,021	(4,021)	–	–	–

The year-end liability at the end of Year 1 is \$7,309 in total.

- The non-current liability is the capital liability that will be outstanding at the end of Year 2, which is \$3,288.
- The current liability is the capital liability that will be paid during Year 2 (= \$5,979 – \$3,288 = \$2,691) plus the \$1,330 interest accrued at the end of Year 1 (but not payable until the start of Year 2). \$2,691 + \$1,330 = \$4,021.

	\$
Current liability, end of Year 1	4,021
Non-current liability, end of Year 1	3,288
Total liability, end of Year 1	7,309

2.7 Finance leases in the financial statements of the lessor

Because the lessor has transferred the risks and rewards of ownership of the physical leased asset to the lessee, the lessor does not record the leased asset in his own financial statements. Instead he records the amount due to him under the terms of the finance lease as a receivable. The entries to be made in the ledger accounts of the lessor are a 'mirror image' of those made by the lessee in respect of his lease liability.

At the start of the lease

The lessor records a receivable for the capital amount owed by the lessee. This should be stated at the amount of the 'net investment in the lease'. The net investment in the lease is the fair value of the asset.

During the term of the lease

The rental payments by the lessee to the lessor consist of two elements:

- finance income (interest on the capital amount receivable from the lessee), and
- a partial repayment of the capital amount receivable.

The finance income is treated as income in profit or loss for the period. The partial repayment of the capital receivable reduces the amount of the remaining capital receivable from the lessee.

Accounting for an operating lease

- Operating leases in the financial statements of the lessee
- Operating leases in the financial statements of the lessor

3 Accounting for an operating lease

3.1 Operating leases in the financial statements of the lessee

An operating lease is accounted for in a different way from a finance lease. The leased asset is not owned 'in substance' by the lessee. The lease arrangement is similar to a rental agreement for the hire of the asset.

IAS17 **Leases** states that the total payments made by the lessee under an operating lease should be recognised as an expense, and apportioned between financial periods on a straight-line basis. (If another rational basis is more appropriate then that may be used.)

Any difference between amounts charged as an expense for a financial period and amounts of lease rental actually paid during the period will result in an accrual or prepayment in the statement of financial position.



Example

Under a four-year operating lease agreement, Entity F pays a non-returnable deposit of \$50,000 and then four years' rental of \$50,000 per annum on the first day of each year.

Required

- (a) Calculate the annual expense for the operating lease for each of the four years.
- (b) Calculate the asset or liability in the statement of financial position at the end of Year 1 and at the end of Year 2.



Answer

- (a) Total lease payments = \$50,000 + (\$50,000 × 4 years) = \$250,000
Annual charge for the lease (annual expense) = \$250,000 ÷ 4 years = \$62,500.

Statement of financial position at end of Year 1	\$
Lease payments in Year 1 (\$50,000 + \$50,000)	100,000
Charged as an expense in Year 1	(62,500)
Prepayment: asset at end of Year 1	37,500

(b)

Statement of financial position at end of Year 2	\$
Balance b/f from Year 1 (prepayment)	37,500
Lease payment in Year 2	50,000
	87,500
Charged as an expense in Year 2	(62,500)
Prepayment: asset at end of Year 2	25,000

3.2 Operating leases in the financial statements of the lessor

Because the lessor has **not** transferred the risks and rewards of ownership of the physical asset to the lessee, the lessor shows the leased asset as a non-current asset in its statement of financial position.

It will be shown in an appropriate category of **property, plant and equipment** at its carrying value (cost/valuation minus accumulated depreciation).

In respect of the leased asset, the lessor's annual statement of comprehensive income will include in profit or loss:

- depreciation on the asset as an expense, and
- rental income (as for the lessee, this is usually calculated on a straight-line basis).

Leases: disclosure requirements

- Finance leases: disclosures in the financial statements of the lessee
- Operating leases: disclosure requirements

4 Leases: disclosure requirements

4.1 Finance leases: disclosures in the financial statements of the lessee

In the financial statements of a lessee, finance lease liabilities must be split between their current and non-current components (as explained earlier).

- The current liability consists of the amount of the 'capital' obligation for the finance lease that will be repaid in the next 12 months, plus any accrued interest.
- The non-current liability is the amount of the 'capital' obligation for the finance lease that will not be repaid in the next 12 months.

Other disclosures are required in accordance with IAS16 **Property, plant and equipment**, because the leased assets are treated as tangible non-current assets in the financial statements of the lessee.

In addition, IAS17 requires the following disclosures about finance leases in notes to the financial statements of the lessee.

- For each class of asset, the **net carrying amount** (net book value) of assets held under finance leases at the end of the reporting period.
- An analysis of the total liability for finance lease obligations, divided between amounts falling due
 - within 1 year
 - within 2 to 5 years
 - after more than 5 years.

These amounts must be shown on both a **net** and a **gross** basis. The **gross basis** is the minimum amount of lease payments that will be paid over the term of the lease. The **net basis** is the amount of these minimum payments discounted to a present value, using the interest rate implicit in the lease as the discount rate.

- A general description of the lessee's material leasing arrangements.
- Contingent rents recognised as an expense in the period. Contingent rents are lease rental payments that are not fixed in amount. Contingent rents payable are not linked to the passage of time but to other factors specified in the lease agreement and their total amount is therefore uncertain. Contingent rents are rents in excess of the minimum rental payments.



Example

The fair value of an asset, leased under a finance lease commencing on 1 January Year 1 is \$12,886. The lease is for three years with payments of \$5,000 annually on 31 December Year 1, Year 2 and Year 3. The interest rate implicit in the lease is 8%.

Finance charges are allocated using the actuarial basis, and the following lease payments table has been prepared.

Year ended 31 December	Opening balance (OB)	Interest at 8% (I = OB × 8%)	Lease payment (P)	Closing balance (CB = OB + I – P)
	\$	\$	\$	\$
Year 1	12,886	1,031	(5,000)	8,917
Year 2	8,917	713	(5,000)	4,630
Year 3	4,630	370	(5,000)	–

Required

Show the required disclosures in the financial statements in respect of the finance lease at the end of Year 1.



Answer

	Current liabilities	Non-current liabilities
	\$	\$
Finance lease obligations (end of Year 1 current liabilities = total liability \$8,917 minus end of Year 2 total liability \$4,630)	4,287	4,630

Net basis

Finance lease obligations include amounts due within:

	\$
One year	4,287
Two to five years	4,630
Over five years	–
	<u>8,917</u>

Gross basis

Finance lease obligations include amounts due within:

	\$
One year	5,000
Two to five years	5,000
Over five years	-
	<u>10,000</u>
Minus: Finance charges allocated to future periods (713 + 370)	(1,083)
	<u>8,917</u>

4.2 Operating leases: disclosure requirements

IAS17 requires the following disclosures about operating leases in notes to the financial statements of the lessee:

- Lease payments charged as an expense in the period.
- An analysis of amounts payable in one, two to five and over five years. This is a note of future **commitments** under operating leases, not year-end amounts due.

**Example**

Under an operating lease agreement, Entity F pays a non-returnable deposit of \$50,000 and then four years' rental of \$50,000 per annum on the first day of each year (the first day of Year 1, Year 2, Year 3 and Year 4).

Total lease payments = \$50,000 + (\$50,000 × 4 years) = \$250,000

Annual charge for the lease = \$250,000 ÷ 4 years = \$62,500.

In the Year 1 financial statements the lease payments charged as an expense are therefore \$62,500, and these should be disclosed.

At the end of Year 1, the disclosure of the minimum lease payments under non-cancellable operating leases are as follows:

	\$
Within one year	50,000
Within two to five years	100,000
After more than five years	-
Total minimum lease payments	<u>150,000</u>

A general description of the lessee's significant leasing arrangements should also be disclosed.

Provisions, contingent liabilities and contingent assets

Contents

- 1 Provisions
- 2 Contingent liabilities and contingent assets
- 3 Events after the reporting period: IAS10

Provisions

- The nature of a provision
- Definitions
- The need for an accounting standard on provisions
- Recognising a provision
- Measuring a provision
- Changes in provisions
- Uses of provisions
- Accounting for specific types of provision
- Disclosures about provisions

1 Provisions

1.1 The nature of a provision

A **provision** is a type of liability. However it is a liability of an **uncertain amount** or uncertain timing.

The double entry in the ledger accounts to create a provision is:

Debit:	Appropriate expense (when the provision is created)
Credit:	Provision (included in current or non-current liabilities, as appropriate, in the statement of financial position).

Creating a provision therefore reduces profit, by the amount of the provision that has been created.

The provision is then adjusted annually as necessary, with any increase or decrease in the provision being taken to profit or loss.

- An increase in a provision reduces profit.
- A reduction in a provision increases profit.



Example

An entity has been sued by a customer in Year 1. The customer is almost certain to win the legal dispute, but the amount that will be needed to settle the claim is not yet certain. At the end of Year 1, the entity's solicitor advises that, in his opinion, the cost of the settlement will be \$1,000,000.

At the end of Year 1 a provision for the \$1,000,000 is set up as follows.

		\$	\$
Dr	Expenses	1,000,000	
	Cr Provision		1,000,000

The profit in Year 1 will be reduced by the amount of the provision that has been created.

Year 2

At the end of Year 2 the claim has still not been settled, and the solicitor now advises that the claim will probably be settled in the customer's favour at \$1,200,000. The provision is adjusted to \$1,200,000, as follows.

	\$	\$
Dr Expenses	200,000	
Cr Provision		200,000

An additional \$200,000 has now been charged against profit (in Year 2) and the provision in the statement of financial position is adjusted to the revised estimate of \$1,200,000.

Year 3

At the end of Year 3 the claim has still not been settled. The solicitor now believes that the claim will be settled at \$900,000. The provision is reduced to \$900,000. The adjustment is made as follows.

	\$	\$
Dr Provision	300,000	
Cr Expenses		300,000

The excess provision of \$300,000 has now been released and the total provision reduced by \$300,000. The reduction in the provision adds to profit in Year 3, and the provision in the statement of financial position is adjusted down to the revised estimate of \$900,000.

Year 4

The claim is settled in Year 4 at \$950,000. On settlement, the double entry in the ledger accounts will be:

	\$	\$
Dr Expenses	50,000	
Dr Provision	900,000	
Cr Cash		950,000

The charge against profit in Year 4 for settlement of the legal claim is \$50,000.

The provision no longer exists. The total amount charged against profit over the four years was the final settlement figure of \$950,000.

	\$
Year 1	(1,000,000)
Year 2	(200,000)
Year 3	300,000
Year 4	(50,000)
Total	(950,000)

1.2 Definitions

IAS37 gives the following definitions:

- A **provision** is a type of liability. It is a liability of **uncertain timing** or **uncertain amount**.
- A liability is:
 - a present obligation
 - arising from past events
 - the settlement of which is expected to result in an outflow of economic benefits.

An 'ordinary' liability is for a **known** amount. For example, an amount payable under the terms of a finance lease agreement is a liability. The obligation arises from the lease agreement. The settlement of the obligation by means of the lease payments will result in a known outflow of cash on known dates.

A provision is a liability of an **uncertain** amount or uncertain timing, such as:

- amounts that an entity might have to pay under a guarantee, or
- (as in the example above) as the result of a legal claim.

An entity may know that it will have to incur expenses or will have to make a payment under guarantees it has given to customers. It therefore has a liability – an obligation that already exists arising from past events that will result in an outflow of economic benefits in the future. However, it will not know for certain when claims might be made under the guarantees and how much the claims will cost. The entity should therefore make a provision for expenses or payments that it expects to make under the terms of its guarantees.

1.3 The need for an accounting standard on provisions

Before IAS37 was introduced, it was common practice for entities to use different bases for making provisions. This led to a lack of consistency between their financial statements.

Entities also used provisions as a method of 'moving' profits between accounting periods (profit smoothing). A provision could be created or increased if an entity wanted to reduce the reported profit for one year, and then a provision could be reduced in a subsequent year, when the entity wanted to report a higher profit.

For example, at the end of Year 1 a company might be planning a reorganisation that will take place over the next four years (Years 2 – 5) at an expected cost of \$2,000,000. **Before IAS37**, the company might have chosen **any** of the following accounting policies:

- To treat the costs of reorganisation as an expense in the year when the expense occurs. In this way, profit in each of Years 2 – 5 is reduced by the actual costs of the organisation in each year.
- To create a provision of \$2,000,000 at the end of Year 1, but spread the creation of the provision over four years (Years 1 – 4) at \$500,000 in each year. The provision

is created as \$500,000 in Year 1, then increased to \$1 million in Year 2, \$1.5 million in Year 3 and \$2 million in Year 4. In each of the Years 1 - 4, the net expense for the reorganisation will be \$500,000 minus the actual reorganisation costs incurred.

- To take all the 'bad news' in Year 1 by creating a full provision for \$2,000,000 immediately. This will reduce profit by \$2,000,000 in Year 1. If actual reorganisation costs are \$2,000,000, there will be no further charge against profit in any of the Years 2 – 5.

In many cases, management would choose to create a large provision, and 'take all the bad news' immediately. Although this would reduce profits by a large amount in the first year, when the provision was made, profits in future years would be 'protected'.

There were other problems with accounting for provisions.

- Entities often made provisions for future expenditure that management planned to incur, but to which it was not yet fully committed. For example, at the end of Year 1 an entity might recognise a provision for the expense of replacing plant during Year 2. However, in Year 2 management might then decide not to replace the plant after all and to release the provision. Sometimes 'management intentions' were used deliberately to distort reported profits and losses and to mislead users of the financial statements.
- Several different items could be combined into one large all-purpose provision (sometimes called 'the big bath'). This was then available to be released to income to improve profits in poor-performing years.

IAS37 brought to an end this ability for entities to use provisions as a method of 'manipulating' profits between different years.

1.4 Recognising a provision

Under IAS37, a provision should only be recognised when:

- an entity has a present obligation as a result of a past event
- it is probable that an outflow of economic benefits will be required to settle the obligation, and
- a reliable estimate can be made of the amount of the obligation.

Note: These 'rules' are the '**recognition criteria**' for provisions.

Present obligation

There must be an obligation already in existence. The obligation may be legal or constructive.

- A **legal obligation** is one arising from a contract, or some other aspect of the law.

- A **constructive obligation** is one arising from the entity's actions, whereby
 - through established past practice, published policies, or a specific current statement, the entity has indicated to other parties that it will accept certain responsibilities, and
 - as a result, the entity has created a valid expectation that it will discharge those responsibilities.

For example, a clothing retailer may have a policy of taking back items of clothing that customers have purchased, and refunding the purchase price, simply because the purchaser has changed his or her mind after purchase and wants to return the purchased item and obtain a refund. The retailer might not be under a legal obligation to take back purchased items in this way, so there is no legal obligation.

However, if this is the usual practice of a particular retailer, and the retailer's policy is well-known or has been made known to customers, then a constructive obligation arises.

Obligation arising out of a past event

The event leading to the obligation must be **past**, and must have occurred before the end of the reporting period when the provision is first recognised. No provision is made for costs that may be incurred in the future but where no obligation yet exists. For example, if an entity is planning a reorganisation but does not yet have an obligation (legal or constructive) to undertake the reorganisation, it cannot create a provision for reorganisation costs.

Probable outflow of economic benefits

The outflow of benefits must be **probable**. 'Probable' is defined by IAS37 as '**more likely than not to occur**'. For example, an entity may have given a guarantee but may not expect to have to honour it. In such a situation, it cannot create a provision for the cost of expenses that it may have to incur under the terms of the guarantee. This is because a payment under the guarantee is not probable.

1.5 Measuring a provision

The amount recognised as a provision should be the best estimate, as at the end of the reporting period, of the future expenditure required to settle the obligation.

Risks and uncertainties should be taken into account in reaching the best estimate. Events after the reporting period will provide useful evidence. (Events after the reporting period are dealt with in more detail later.)

However, entities should:

- **avoid creating excessive provisions** (which could be used as a way of manipulating profits between financial years), or
- **avoid underestimating provisions.**

The following guidelines apply to measuring a provision.

- In measuring a **single obligation**, the most likely outcome may be the best estimate of the liability.
- However, if there are other possibilities which are mostly higher or mostly lower than the most likely outcome, then the best estimate will be a higher or lower amount.
- When there is a **large population of potential obligations** (for example, a provision for multiple claims under guarantees) the obligation should be estimated by calculating an expected value of the cost of the future obligations. This is done by weighting all possible outcomes by their associated probabilities.
- If there is a considerable time lag before the settlement of the provision then the amount provided should be discounted to a present value.

In some cases, a part or all of an entity's provision may be recoverable from a third party. For example, an entity paying out to a customer under the terms of a guarantee may itself be able to claim money back from one of its own suppliers.

IAS37 requires that such a reimbursement:

- should only be recognised where receipt is 'virtually certain', and
- should be treated as a separate asset in the statement of financial position (i.e. not netted off against the provision) at an amount no greater than that of the provision.

e

Example

Entity G has a financial year ending 31 December. On 15 December Year 1, an employee was injured in the workplace and has sued Entity G for compensation under current health and safety legislation. Entity G's solicitors believe that the employee's claim has a 60% chance of success. The solicitors estimate that, if successful, the claim will be settled at \$20,000.

Required

Consider whether or not Entity G should provide for the claim at 31 December Year 1 and, if so, at what amount.

a

Answer

If a provision is to be made:

- there must be a present obligation as a result of a past event
- it must be probable that an outflow of economic benefits will be required to settle the obligation, and
- it must be possible to make a reliable estimate of the amount of the obligation.

Applying this to the facts in the example:

- (1) Entity G has a legal obligation under the health and safety legislation. The obligation has arisen from a past event, which is the accident on 15 December Year 1.
- (2) It is probable that Entity G will have to pay the employee. A '60% chance of success' means that success is 'more likely than not'. (A probability above 50% meets the IAS37 definition of 'probable'.)
- (3) A reliable estimate can be made. This is \$20,000.

Conclusion: A provision of \$20,000 should be made at 31 December Year 1.

e

Example

A manufacturer gives warranties at the time of sale to buyers of its products. Under the terms of the warranty, the manufacturer agrees to repair or replace any faulty products free of charge within two years from the date of sale. Experience over the past few years has shown that the cost of such repairs and replacements each year has been about 5% of the total sales revenue from the products. Annual sales of the product are \$1 million.

Required

Consider whether or not the manufacturer should provide for warranty claims on 30 June Year 2 and, if so, at what amount.

a

Answer

If a provision is to be made:

- there must be a present obligation as a result of a past event
- it must be **probable** that an outflow of economic benefits will be required to settle the obligation
- it must be possible to make a **reliable estimate** of the amount of the obligation.

Applying this to the facts in the example:

- (1) The past obligating event is the sale of the products with the warranty during the year. This gives rise to a legal obligation on 30 June Year 2.
- (2) An outflow is probable **for the warranties as a whole**.
- (3) A reliable estimate can be made. Annual sales are \$1 million, annual costs under the warranties are 5% of this amount (= \$50,000) and the warranties are given to customers for two years. The provision should therefore be 2 years × \$50,000 = \$100,000.

Conclusion: A provision of \$100,000 should be made on 30 June Year 2.

1.6 Changes in provisions

It has already been stated that when the amount of a provision is increased, the amount of the increase is treated as an expense. Similarly, when a provision is reduced, the reduction is an addition to profit.

IAS37 requires that provisions should be reviewed at the end of each reporting period and adjusted to the current 'best estimate'.

When a provision is included in the statement of financial position at a discounted value (at present value) the amount of the provision will increase over time, to reflect the passage of time. In other words, as time passes the amount of the gets smaller, so the reported provision increases. This increase in value is included in **borrowing costs** for the period.

1.7 Use of provisions

IAS37 also states that a provision may be used only for expenditures for which the provision was originally recognised.

For example, suppose that a company has created a provision of \$300,000 for the cost of warranties and guarantees, and now finds that it will probably has to pay \$250,000 to settle a legal dispute for which it has made a provision of only \$175,000, which is \$75,000 lower. It cannot choose to set off the 'surplus' \$75,000 of payment to settle the legal dispute against the provision for warranties and guarantees.

IAS37 comments that setting off expenditures against a provision that was originally recognised for another purpose would result in concealing the effect of two different events.

1.8 Accounting for specific types of provision

The following rules apply to specific types of provision.

Onerous contracts

An onerous contract is a contract where the unavoidable costs of fulfilling/completing the contract now exceed the benefits to be received (the contract revenue).

A provision should be made for the additional unavoidable costs of an onerous contract. (The 'additional unavoidable costs' are the amount by which costs that cannot be avoided are expected to exceed the benefits.)



Example

On 31 December Year 4, Entity H is half way through an eight year operating lease on its factory when it moves to a new factory. Annual lease payments are \$60,000. It cannot cancel the lease or sub-let the factory.

Required

Consider whether or not the conditions for making a provision are met and at what amount, if any, a provision should be made.

a

Answer

A present legal obligation exists as a result of a past event (the signing of the lease).

An outflow of resources is probable. (These are the rentals for the remainder of the term of the lease, which cannot be avoided.)

The amount can be measured reliably ($\$60,000 \times 4$ years, discounted to a present value).

The discounted value of the future lease payments for four years may therefore be recognised as a provision.

Restructuring

An entity may plan to restructure a significant part of its operations. Examples of restructuring are:

- the sale or termination of a line of business
- the closure of business operations in a country or geographical region, or relocation of operations from one region or country to another
- major changes in management structure, such as the removal of an entire 'layer' of management from the management hierarchy
- fundamental reorganisations changing the nature and focus of the entity's operations.

A provision may be made for the future restructuring costs **only if a present obligation exists**.

A **constructive** obligation is likely to occur where, prior to the end of the reporting period:

- a detailed formal plan exists for the reconstruction
- and this plan has raised a valid expectation, in the mind of those people affected by the restructuring, that the reconstruction will occur.

This may mean, for example, that the board of directors has drawn up a formal plan of restructuring, and has announced that plan to the work force or has made a public announcement about it.

Any provision for restructuring costs that is created:

- should include only the expected direct expenses arising from the restructuring, and

- should not include ongoing expenses such as:
 - the costs of retraining or relocating continuing staff
 - the cost of marketing
 - the cost of investing in new systems.

Future operating losses

An entity may forecast that it will make a substantial operating loss in the next year or several years. If so, its directors might want to 'take all the bad news' immediately, and create a provision for the future losses.

Provisions cannot be made for future operating losses. This is because they arise from future events, not past events.

Environmental and similar provisions

An entity may be required to 'clean up' a location where it has been working when production ceases. For example, an entity that operates an oil rig may have to repair the damage it has caused to the sea bed once the oil has all been extracted.

An entity does not necessarily have to recognise a provision if it has caused environmental damage, even if it intends to clean up the site. The normal rules apply for the recognition of a provision: an entity recognises a provision only where it has an **obligation** to rectify environmental damage as a result of a **past event**.

An entity has an obligation to 'clean-up' a site if:

- it is required to do so by law (a legal obligation); or
- its actions have created a **constructive obligation** to do so.

A constructive obligation might exist if (for example) an entity has actually promised to decontaminate a site or if it has adopted environmentally friendly policies and has made the public aware of this.

In some cases, a provision for making good environmental damage can only be recognised if the environmental damage has **already happened** (a past event). The following example illustrates this.



Example

An entity is about to begin to operate a coal mine. At the end of the reporting period, the mineshaft has been prepared and all the necessary equipment has been constructed and is in place, but no coal has yet been extracted. Under local law, the entity is obliged to rectify all damage to the site once the mining operation has been completed (this is expected to be several years from now). Management estimates that 20% of the eventual costs of performing this work will relate to removing the equipment and various buildings and the remaining 80% will relate to restoring the damage caused by the actual extraction of coal.

Should a provision be recognised for the cost of restoring the damage?

a

Answer

The entity has a legal obligation to rectify the environmental damage caused by the actual digging of the mineshaft and construction of the site. An outflow of economic benefits is probable.

Therefore the entity should recognise a provision for the best estimate of removing the equipment and rectifying other damage which has occurred to date. This is expected to be about 20% of the total cost of restoring the site.

Because no coal has yet been extracted, the entity has no obligation to rectify any damage caused by mining. No provision can be recognised for this part of the expenditure (estimated at about 80% of the total).

On the other hand, when an energy company undertakes to construct a new nuclear power station, and has a legal obligation to decontaminate the site when the power station reaches the end of its life, a provision for future decontamination costs should be made, and the cost included in the initial cost of the asset.

Accounting for a provision for environmental costs

When an entity has an obligation to clean up environmental damage, it normally has to recognise a provision for expenditure which will take place many years in the future.

The estimated **full cost** of the expenditure should be recognised as soon as an obligation arises. However, the provision is discounted to its net present value if the time cost of money is material. (An examination question will make this clear and will give you the discount rate to use.)

As well as recognising a liability for future expenditure, an entity normally **recognises an asset**. Usually the entity cannot carry out its operations without agreeing to incur the expense of cleaning up any damage that it causes. This expenditure meets the definition of an asset, because it gives the entity access to future economic benefits in the form of sales revenue.

The double entry is:

- Debit: Non-current asset
- Credit Provision (rather than Debit Expense; Credit Provision).

The asset is then depreciated over its useful life in the same way as other non-current assets.

e

Example

Entity Z has constructed an oil rig which is due to become operational on 1 January Year 1. The entity has promised that when the oil rig is eventually decommissioned it will restore the sea bed and clean up any contamination that it has caused. It is estimated that the cost of decommissioning the oil rig will be \$8 million and that

decommissioning will take place in ten years' time. The risk free cost of capital for the company is 10%. The oil rig is depreciated on a straight line basis over its economic life of 10 years.

Required:

Explain how the cost of decommissioning the oil rig should be treated in the financial statements for the year ended 31 December Year 1.

a

Answer

Entity Z has a constructive obligation to repair environmental damage as the result of a past event (the construction of the oil rig). Therefore it must recognise a provision for the decommissioning costs.

IAS 16 **Property, plant and equipment** states that the cost of an asset should include the estimated costs of dismantling and restoring a site, if the entity has an obligation to incur these costs. The decommissioning costs give Entity Z the right to future economic benefits in the form of revenues from extracting and selling oil. Therefore the decommissioning costs are also recognised as part of the cost of constructing the oil rig.

Because the costs will not be incurred for ten years, the estimated cost of \$8 million is discounted to its present value. Discount factors can be found from tables. If you have to discount a provision in the examination, you will be given the discount factors that you need.

- At 1 January Year 1 the present value of \$8 million is \$3,088,000 (= \$8 million × 0.386).
- At 31 December Year 1 the present value of \$8 million is \$3,392,000 (\$8 million × 0.424).
- The increase in the liability during Year 1 (called the 'unwinding of the discount') is recognised as a finance cost in the year (similar to interest).

At 1 January Year 1 Entity Z recognises:

- a provision of \$3,088,000, and
- an asset for the same amount.

In Year 1 expenses should include:

- a finance cost of \$308,800 (10% × \$3,088,000) which is the unwinding of the discount, and
- depreciation of \$308,800 (= \$3,088,000 ÷ 10).

In the statement of financial position at 31 December Year 1:

- the provision is measured at \$3,392,000
- the asset is measured at its carrying amount = net book value of \$2,779,200 (3,088,000 – 308,800).

By the end of Year 10, the provision will have increased to \$8 million and the asset will have been depreciated to a net book value of \$0. The provision at the end of Year 10 should therefore cover the clean-up costs. The effective double entry when the clean-up costs are incurred will be:

Debit: Provision (using the provision)

Credit: Cash

Future repairs to assets

Some assets need to be repaired or to have parts replaced at intervals during their lives.

For example, suppose that a furnace has a lining that has to be replaced every five years. If the lining is not replaced, the furnace will break down.

Before IAS 37 was issued, entities would often recognise provisions for the cost of future repairs or replacement parts. These might be built up in instalments over the life of the asset or the relevant part of the asset.

IAS 37 effectively prohibits this treatment. The reasoning behind this is that an entity almost always has an alternative to incurring the expenditure, even if it is required by law (for example, for safety reasons). For example, the entity which has to replace the lining of its furnace could sell the furnace or stop using it, although this is unlikely in practice.

IAS 37 states that a provision cannot be recognised for the cost of future repairs or replacement parts unless the entity has an **obligation** to incur the expenditure, which is unlikely. The obligating event is normally the actual repair or purchase of the replacement part.

Instead of recognising a provision, an entity should capitalise expenditure incurred on replacement of an asset and depreciate this cost over its useful life. This is the period until the part needs to be replaced again. For example, the cost of replacing the furnace lining should be capitalised, so that the furnace lining is a non-current asset; the cost should then be depreciated over five years. (Note: IAS 16 **Property, plant and equipment** states that where an asset has two or more parts with different useful lives, each part should be depreciated separately.)

Normal repair costs, however, are expenses that should be included in profit or loss as incurred.

1.7 Disclosures about provisions

IAS37 requires the following disclosures about provisions in notes to the financial statements.

For each class of provision:

- the opening and closing balances and movements in the provision during the year

- a brief description of
 - the nature of the obligation
 - the expected timing of any settlement
 - an indication of the uncertainties surrounding the amount and timing of any settlement.

Contingent liabilities and contingent assets

- Definitions
- Recognising contingent liabilities or contingent assets
- Disclosures about contingent liabilities and contingent assets
- Summary: liabilities, provisions, contingent liabilities and contingent assets

2 Contingent liabilities and contingent assets

2.1 Definitions

‘Contingent’ means ‘dependent on something else happening’.

Contingent liability

A contingent liability is **either of the following**:

A contingent liability is:

- a possible obligation
- arising from past events
- whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events.

A contingent liability is:

- a present obligation
- arising from past events
- which is not recognised as an actual liability because
 - an outflow of economic benefits is not probable, or
 - the amount of the obligation cannot be estimated reliably.

A contingent liability arises when some, **but not all**, of the criteria for recognising a provision are met. For example, a contingent liability exists, but not a provision or an actual liability if:

- a reliable estimate cannot be made, or
- there is merely a **possible** obligation, not a **probable** obligation.



Example

Entity G is involved in a legal dispute with a customer, who is making a claim against Entity G for losses it has suffered as a consequence of a breach of contract. If Entity G’s solicitors believe that the likelihood of the claim succeeding is **possible** rather than probable, then the claim should be treated as a contingent liability and not as a provision.

Contingent asset

A contingent asset is:

- a possible asset
- arising from past events
- whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events.

An example of a contingent asset might be a possible gain arising from an outstanding legal action against a third party. The existence of the asset (the money receivable) will only be confirmed by the outcome of the legal dispute.

2.2 Recognising contingent liabilities or contingent assets

Unlike provisions, contingent liabilities and assets:

- **are not recognised** in the financial statements and
- are not recorded in the ledger accounts of an entity. (They are not included in the double entry ledger accounting system.)

In some circumstances, information about the existence of a contingent asset or a contingent liability should be **disclosed** in the notes to the financial statements

- **Contingent liabilities** should be disclosed unless the possibility of any outflow in settlement is remote (the meaning of 'remote' is not defined in IAS37).
- **Contingent assets** should be **disclosed only if** an inflow in settlement is **probable**. 'Probable' is defined by IAS37 as 'more likely than not'. (And if an inflow is certain, the item is an actual asset that should be recognised in the statement of financial position.)

2.3 Disclosures about contingent liabilities and contingent assets

Where disclosure of a contingent liability or a contingent asset is appropriate, IAS37 requires the following disclosures in notes to the financial statements.

- A brief description of the nature of the contingent liability/asset
- Where practicable:
 - an estimate of its financial effect
 - an indication of the uncertainties.
- For contingent liabilities, the possibility of any reimbursement.

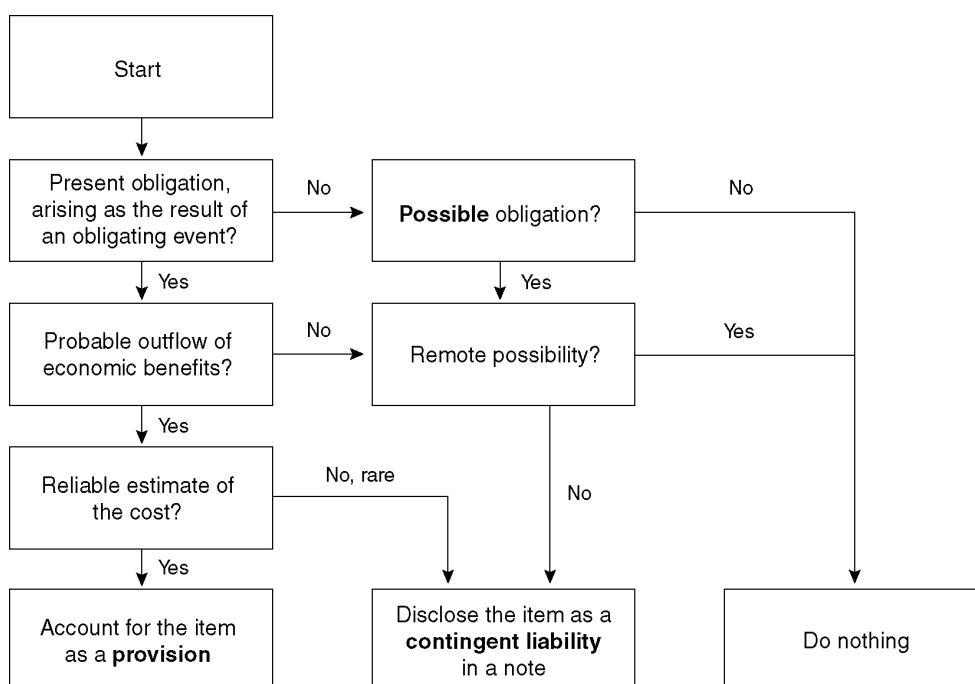
2.4 Summary: liabilities, provisions, contingent liabilities and contingent assets

The following table provides a summary of the rules about whether items should be treated as liabilities, provisions, contingent liabilities or contingent assets.

	Liability	Provision	Contingent liability	Contingent asset
Present obligation/ asset arising from past events?	Yes	Yes	Yes	Only a possible obligation Only a possible asset
Will settlement result in outflow/ inflow of economic benefits?	Expected outflow	Probable outflow – and a reliable estimate can be made of the obligation	Not probable outflow – or a reliable estimate cannot be made of the obligation	Outflow to be confirmed by uncertain future events Inflow to be confirmed by uncertain future events
Treatment in the financial statements	Set up a liability	Set up a provision (a type of liability)	Disclose as a contingent liability (unless the possibility of outflow is remote)	Only disclose if inflow is probable

Decision tree

An Appendix to IAS37 has a decision tree, showing the rules for deciding whether an item should be recognised as a provision, reported as a contingent liability, or not reported at all in the financial statements.



Events after the reporting period: IAS10

- Purpose of IAS10
- Definitions
- Accounting for adjusting events after the reporting period
- Disclosures for non-adjusting events after the reporting period
- Dividends
- The going concern assumption

3 Events after the reporting period: IAS10

3.1 Purpose of IAS10

IAS10 **Events after the reporting period** has two main objectives:

- to specify when an entity should adjust its financial statements for events that occur after the end of the reporting period, but before the financial statements are authorised for issue, and
- to specify the disclosures that should be given about events that have occurred after the end of the reporting period but before the financial statements were authorised for issue.

IAS10 also includes a requirement that the financial statements should disclose when the statements were authorised for issue, and who gave the authorisation.

3.2 Definitions

IAS10 sets out the following key definitions.

Events after the reporting period are those events, favourable and unfavourable that occur between the end of the reporting period and the date the financial statements are authorised for issue.

There are two types of event after the reporting period:

- Adjusting events. These are events that provide evidence of conditions that already existed as at the end of the reporting period.
- Non-adjusting events. These are events that have occurred due to conditions arising after the end of the reporting period.

3.3 Accounting for adjusting events after the reporting period

IAS10 states that if an entity obtains information about an adjusting event after the reporting period, it should update the financial statements to allow for this new information.

‘An entity shall adjust the amounts recognised in its financial statements to reflect adjusting events after the reporting period.’

IAS10 gives the following examples of **adjusting events**.

- The settlement of a court case after the end of the reporting period, confirming that the entity had a present obligation as at the end of the reporting period as a consequence of the case.
- The receipt of information after the reporting period indicating that an asset was impaired as at the end of the reporting period. For example, information may be obtained about the bankruptcy of a customer, indicating the need to make a provision for a bad (irrecoverable) debt against a trade receivable in the year-end statement of financial position. Similarly, information might be obtained after the reporting period has ended indicating that as at the end of the reporting period the net realisable value of some inventory was less than its cost, and the inventory should therefore be written down in value.
- The determination after the end of the reporting period of the purchase cost of an asset, where the asset had already been purchased before the end of the reporting period, but the purchase price had not been finally agreed or decided. Similarly, the determination after the reporting period of the sale price for a non-current asset, where the sale had been made before the end of the reporting period but the sale price had not yet been finally agreed.
- The discovery of fraud or errors showing that the financial statements are incorrect.



Example

On 31 December Year 1, Entity G is involved in a court case. It is being sued by a supplier. On 15 April Year 2, the court decided that Entity G should pay the supplier \$45,000 in settlement of the dispute. The financial statements for Entity G for the year ended 31 December Year 1 were authorised for issue on 17 May Year 2.

The settlement of the court case is an adjusting event after the reporting period:

- It is an event that occurred between the end of the reporting period and the date the financial statements were authorised for issue.
- It provided evidence of a condition that existed at the end of the reporting period. In this example, the court decision provides evidence that the entity had an obligation to the supplier as at the end of the reporting period.

Since it is an adjusting event after the reporting period, the financial statements for Year 1 must be adjusted to include a provision for \$45,000. The alteration to the financial statements should be made before they are approved and authorised for issue.

3.4 Disclosures for non-adjusting events after the reporting period

Non-adjusting events after the reporting period are treated differently. A non-adjusting event relates to conditions that did not exist at the end of the reporting

period, therefore the financial statements must not be updated to include the effects of the event. IAS10 states quite firmly: 'An entity shall **not** adjust the amounts recognised in the financial statements to reflect non-adjusting events after the reporting period'.

However, IAS10 goes on to say that if a non-adjusting event is **material**, a failure by the entity to provide a disclosure about it could influence the economic decisions taken by users of the financial statements. For **material non-adjusting events** IAS10 therefore requires disclosure of:

- the nature of the event, and
- an estimate of its financial effect, or a statement that such an estimate cannot be made.

This information should be disclosed in a note to the financial statements.

(**Note:** There are no disclosure requirements for adjusting events as they have already been reflected in the financial statements.)

IAS10 gives the following examples of **non-adjusting events**.

- A fall in value of an asset after the end of the reporting period, such as a large fall in the market value of some investments owned by the entity, between the end of the reporting period and the date the financial statements are authorised for issue. A fall in market value after the end of the reporting period will normally reflect conditions that arise after the reporting period, not conditions already existing as at the end of the reporting period.
- The acquisition or disposal of a major subsidiary.
- The formal announcement of a plan to discontinue a major operation.
- Announcing or commencing the implementation of a major restructuring.
- The destruction of a major plant by a fire after the end of the reporting period. The 'condition' is the fire, not the plant, and the fire didn't exist at the end of the reporting period. The plant should therefore be reported in the statement of financial position at its carrying amount as at the end of the reporting period. The fire, and the financial consequences of the fire, should be disclosed in a note to the financial statements.

3.5 Dividends

IAS10 also contains specific provisions about proposed dividends and the going concern presumption on which financial statements are normally based.

If equity **dividends** are **declared after the reporting period**, they should not be recognised, because they did not exist as an obligation at the end of the reporting period.

Dividends proposed after the reporting period (but before the financial statements are approved) should be disclosed in a note to the financial statements, in accordance with IAS1.

3.6 The going concern assumption

There is one important exception to the normal rule that the financial statements reflect conditions as at the end of the reporting period.

A deterioration in operating results and financial position after the end of the reporting period may indicate that the **going concern presumption** is no longer appropriate. If management decides after the end of the reporting period but before the financial statements are approved that it intends to liquidate the entity or to cease trading, the financial statements for the year just ended should be prepared on some other basis (for example, on a break-up basis).

Contents

- 1 Sales taxes
- 2 Current tax: IAS12
- 3 Deferred tax: IAS12
- 4 Presentation and disclosure requirements of IAS12

Sales taxes

- The nature of sales tax
- Accounting for sales tax

1 Sales taxes

1.1 The nature of sales tax

You should be familiar with sales tax from your previous studies. Many countries have a sales tax or 'value added' tax. Sales of goods and services are taxed at a percentage amount of the sales price. Businesses selling goods and services are required to add the tax to their selling price and collect the tax from their customers.

Some items of goods or services might be either:

- exempt from sales tax (and so outside the scope of the tax), or
- 'zero-rated' (and so within the scope of the tax rules, but with a tax rate of 0%).

Business entities also pay sales tax on most of the goods and services they buy from their suppliers. Businesses are therefore both collectors of tax as the seller, and payers of tax as the buyer. Sales tax on goods or services sold is commonly referred to as **output tax**. Sales tax suffered on purchases is commonly referred to as **input tax**.

The sales tax collected by businesses is paid to the tax authorities. The amount that businesses are required to pay is calculated as set out below.

	\$
Sales tax on goods or services sold (output tax)	X
Minus: Sales tax paid on purchases (input tax)	(X)
	X

A business must pay the difference between its output tax and its input tax to the tax authorities, at periodic intervals specified by the tax regulations.

1.2 Accounting for sales tax

Businesses keep a sales tax account in their main ledger (nominal ledger). This is used to record amounts of sales tax due to or from the tax authorities. Usually, the balance on the account is a credit balance, representing the net amount of tax currently payable to the government. This balance is shown within 'Trade and other payables' as a current liability in the statement of financial position.

Occasionally, there might be an amount due to the business entity from the tax authorities.

This will happen, for example, if most or all of an entity's sales are 'zero-rated' but the entity is still able to claim back the input sales tax on its purchases. In this case the closing balance on the account will be a receivable, appearing within 'Trade and other receivables' in current assets in the statement of financial position.

In the statement of comprehensive income:

- sales revenue excludes sales tax
- purchases and expenses exclude sales tax where this is recoverable
- any irrecoverable sales tax is included in the cost of the item that it relates to, i.e. purchases and expenses include sales tax if the sales tax cannot be recovered from the tax authorities.

Current tax: IAS12

- Definitions
- Basic accounting for current tax
- Current tax paid before the end of the reporting period
- Tax withheld at source
- Under-provision or over-provision of tax in the previous period
- Current tax and other comprehensive income

2 Current tax: IAS12

Definitions

Companies pay tax on their profits. **Current tax** is the amount of tax payable in respect of the taxable profit for a period. If there has been a taxable loss, as opposed to a profit, then current tax is the amount of tax recoverable.

Taxable profits are not the same as accounting profits.

- **Accounting profit** is the profit or loss for the period, before deducting the tax expense.
- **Taxable profit** is determined by adjusting the accounting profit, according to rules established by the tax authorities.

If accounting profits are \$1,000,000 and the tax rate is 25%, it might be expected that tax will be \$250,000 and profit after tax will be \$750,000. However this is not correct. The differences between taxable profits and accounting profits are considered in more detail later.

2.2 Basic accounting for current tax

Current tax appears in the financial statements:

- as an expense for the period (since it reduces profits) and
- as a liability in the statement of financial position (since the tax is payable to the government).

Suppose that Entity X has taxable profits for Year 1 of \$300,000 and the current tax rate is 30%. It has not yet paid any tax on its Year 1 profits. Current tax would appear in the financial statements as follows:

- As a **tax expense** of \$90,000, below the figure for profit before tax
- As **current tax payable** of \$90,000: this is a current liability in the statement of financial position.

However, if the entity has already paid some of the tax for the financial period, the current tax liability will be less than the total current tax for the year. This is explained in more detail below.

If an entity made a **taxable loss** for the period, there will be tax recoverable on the loss. This recoverable tax is treated as:

- tax 'income' (i.e. a negative tax expense) reducing the reported loss, and
- an asset in the statement of financial position.

2.3 Current tax paid before the end of the reporting period

In some countries, companies are required to pay some of their current tax liability for a financial year before the end of the year. This might happen, for example, when:

- current tax is paid in instalments, or
- a payment of dividends results in a requirement for the entity to make an advance payment of current tax.

When a company has already paid some current tax before the end of the reporting period, the current liability for tax in the statement of financial position will be less than the current tax charge against profits for the year.

Suppose that Entity X has taxable profits for Year 1 of \$300,000 and the current tax is \$90,000. At the end of the reporting period, if Entity X has already paid \$40,000 of tax during the year then:

- the tax expense would be \$90,000 (so that profit after tax is \$210,000)
- current tax payable in the statement of financial position would be only \$50,000 (= \$90,000 – \$40,000).

The tax payable account would appear as follows.

Tax payable			
	\$		\$
Cash	40,000	Income statement	90,000
Balance carried forward	50,000		
	90,000		90,000
		Balance brought forward	50,000

2.4 Tax withheld at source

In some countries, business entities may act as collecting agents for the tax authorities for tax on interest paid to investors. For example, a company paying interest to its bondholders may be required to deduct some tax from the 'gross' interest payable. The bondholders would then receive net interest (= gross interest

minus the tax deducted) and the tax deducted by the company would be payable to the government.

	\$
Gross interest	X
Minus: Tax deducted at source	(X)
Equals: Net interest = cash payment	X

Companies may be affected by these taxpaying arrangements both as holders of bonds in other companies and also when paying interest to its own bondholders.

Receiving interest where tax has been withheld at source

A company receiving interest under such a system will receive the interest net of tax (which the paying company will have deducted at source). The double entry to record the receipt will therefore be:

		\$	\$
Debit	Cash (net amount received)	X	
	Credit Interest receivable		X

The company should be able to reclaim the tax that has been deducted, from the tax authorities. In reporting income and profit before tax, the interest income received is therefore **grossed up**. The tax deducted is therefore included in interest income (as part of gross interest). The corresponding double entry is to a tax account recording the amount recoverable from the tax authorities.

		\$	\$
Debit	Tax account (tax withheld)	X	
	Credit Interest receivable		X

For example, suppose that a company has invested in bonds of Entity Z and receives interest of \$20,000. This is after deduction of tax at source of \$5,000. In its financial statements for the period, the company will report interest income at its gross amount, \$25,000. Any tax payable on the interest income will be included in the current tax charge for the period.

Paying interest where tax is withheld at source

A company paying interest might be required to withhold some of the interest payment and hand this over to the tax authorities. Under such a tax system, the company will pay the interest net of tax and will retain an amount for tax payable to the government. The double entry for the actual cash payment of interest will be:

		\$	\$
Dr	Interest payable	X	
	Cr Cash (net amount paid)		X

Because the entity will need to pay the tax to the tax authorities, the interest payment is reported as an expense at its **grossed up** amount, with the other side of the entry for tax withheld being to a tax account recording the amount payable to the authorities.

			\$	\$
Debit	Interest payable	X		
	Credit Tax account (tax withheld)			X



Example

A company has to pay interest of \$400,000 on bonds it has issued, but 25% of interest payable must be deducted at source and is payable to the government tax authorities. The payment of interest should be accounted for initially as follows:

			\$	\$
Debit	Interest payable	400,000		
	Credit Bank			300,000
	Credit Tax account (tax withheld)			100,000

When a company both receives interest and pays interest under the rules of such a tax system, it will use the same tax withheld account to record the interest payable and the interest recoverable from the tax authorities. (The tax withheld account may be called a 'withholding tax' account.)

- If the closing balance on this tax account at the year-end is a receivable, this will be **deducted** from the current tax liability. (If the tax receivable is more than the current tax liability the excess balance is included in receivables.)
- If the closing balance on this tax account at the year-end is a payable, this will be **added** to the current tax liability.

The exact method of operating this type of tax regime varies from country to country. In your examination it should be made clear to you how the particular tax system operates.



Example

During Year 1, Entity Y receives interest of \$15,000 on which tax of \$2,000 has been withheld. It also pays interest of \$45,000 on which it has withheld tax of \$6,000. Entity Y's current tax for Year 1 has been estimated at \$50,000.

Required

- (a) Calculate the current tax liability as it would appear in the statement of financial position of Entity Y at the end of Year 1.
- (b) State the amounts at which interest receivable and interest payable would be included as income/expense for Entity Y for Year 1.

a**Answer****(a) Total current tax liability**

	\$
Current tax	50,000
Withholding tax (6,000 – 2,000)	4,000
Total	54,000

Withholding tax account

	\$		\$
Interest receivable	2,000	Interest payable	6,000
Balance carried forward	4,000		
	6,000	Balance brought forward	4,000

(b) Income and expense

	\$
Interest receivable (15,000 + 2,000)	17,000
Interest payable (45,000 + 6,000)	(51,000)

2.5 Under-provision or over-provision of tax in the previous period

When the financial statements are prepared, the current tax liability for the period is estimated. The actual liability is eventually agreed with the tax authorities, possibly several weeks or months later, after the end of the financial period. The actual liability may be higher or lower than the liability that was provided for in the financial statements. The difference between the actual tax liability and the estimate of the tax liability is either an under-provision of tax (if the estimate was too low) or an over-provision of tax (if the estimate was too high).

Any such **under- or over-provisions** are dealt with in the tax charge for the following accounting period.

- An under-provision of tax in Year 1 is added to the total tax charge for Year 2.
- An over-provision of tax in Year 1 is deducted from the total tax charge for Year 2.

The other side of the double entry is an adjustment to the current tax liability.

e**Example**

Entity X has a current tax liability at the end of Year 1 of \$90,000. During Year 2 the actual tax liability for Year 1 was finally agreed as \$85,000 and this tax was paid. The tax liability for Year 2 was estimated at \$100,000.

	\$
Estimated tax liability for Year 1	(90,000)
Actual tax liability for Year 1	(85,000)
Over-provision for tax in Year 1	(5,000)

The tax payable account for Year 2 would appear as follows.

Tax payable			
Year 2	\$	Year 2	\$
Cash	85,000	Balance brought forward	90,000
Income statement	5,000		
	90,000		90,000
Balance carried forward	100,000	Income statement	100,000
	100,000		100,000

A note to the financial statements should disclose the total tax charge as follows.

- The current tax liability at the end of Year 2 is \$100,000.
- The total tax charge for Year 2 is \$95,000.

	\$
Current tax for the year	100,000
Over-provision of tax in the previous year	(5,000)
Total tax charge	95,000

(Note: Other elements of the total tax charge should also be disclosed, including deferred tax. Deferred tax is explained in the next section.)

2.6 Current tax and other comprehensive income

IAS1 **Presentation of Financial Statements** includes a requirement that the amount of tax relating to each component of 'other comprehensive income' should be shown either in the statement of comprehensive income or in notes to the financial statements.

In the example below, each component of other comprehensive income is shown as a pre-tax amount, and the tax relating to other comprehensive income is disclosed in the statement of comprehensive income as a total figure. However, a detailed analysis should then be provided in notes to the financial statements, showing the before tax, tax and after-tax amounts for each component element of other comprehensive income.

Other comprehensive income

	\$000	\$000
Available-for-sale financial assets:		
Gains arising during the year	800	
Reclassification adjustment for gains now included in profit or loss	(200)	
	<u> </u>	600
Gains on property revaluation		500
Share of other comprehensive income of associate		100
Tax relating to components of other comprehensive income		(360)
Other comprehensive income for the year		<u>840</u>

In notes to the accounts:

	Before tax	Tax (expense) /benefit	Net-of-tax amount
	\$000	\$000	\$000
Available-for-sale financial assets	600	(180)	420
Gain on property revaluation	500	(150)	450
Share of other comprehensive income of associate	<u>100</u>	<u> </u>	<u>70</u>
Other comprehensive income	<u>1,200</u>	<u>(360)</u>	<u>840</u>

An alternative method of presentation is to show, in the statement of comprehensive income itself and for each component of other comprehensive income:

- the pre-tax amount
- tax
- the after-tax amount.

IAS12 includes the following requirements, which are consistent with IAS1:

- (1) Current and deferred tax should be recognised as an expense (or income) and included in the profit or loss for the period, except to the extent that the tax arises from a transaction or event that is recognised either in other comprehensive income or directly in equity.
- (2) Current and deferred tax should be recognised outside profit or loss if the tax relates to items that are recognised outside profit or loss - either in other comprehensive income or directly in equity.

The total tax relating to other comprehensive income should therefore be separated between tax for inclusion in profit or loss, and tax relating to other comprehensive income.

Deferred tax is explained in the next section.

Deferred tax: IAS12

- The underlying problem
- Accounting for temporary differences: deferred tax account
- The basic principle of IAS12
- Further examples of when deferred tax might arise
- Deferred tax assets
- Deferred tax relating to revaluations
- Deferred tax in the examination
- Other methods of accounting for deferred tax

3 Deferred tax: IAS12

3.1 The underlying problem

An entity pays tax on its profits to the tax authorities. This tax is calculated by multiplying the **taxable profits** by the appropriate tax rate. However, taxable profits are rarely the same as **profit before tax** as disclosed in the financial statements (statement of comprehensive income). This is because certain items that have been included as expenses in accounting profit or loss are not **allowable** for tax purposes.

The differences between accounting profit and taxable profit for any financial year can be classified as:

- permanent differences, and
- temporary differences.

Permanent differences

Permanent differences arise from items of expenditure that have been included in expense in arriving at the figure for accounting profit, but that will **never** be included in the calculation of taxable profits. This is because the item of expense is not allowable for tax purposes. For example, some countries do not allow entertainment expenses to be deducted in arriving at taxable profits. Such expenses have to be 'added back' to the accounting profit in order to compute the taxable profit. As a result the entity will pay more tax than the figure for accounting profit might suggest it should do.

Temporary differences ('taxable temporary differences')

Temporary differences arise from items of income and expenditure that are:

- included in both accounting profits and taxable profits
- but in different accounting periods.

For example, tax relief for capital expenditure on non-current assets (capital allowances) may be given at a faster rate than depreciation is charged on the non-current assets in the financial statements. Over the full life of the asset, the total amount allowed as deductions from taxable profits will be the same as the total depreciation charge in the financial statements. However, in each individual financial year, the amount of 'depreciation' allowed for tax purposes and the depreciation charge in the financial statements are different.

The tax effect of these taxable temporary differences is accounted for in the financial statements by means of **deferred tax**.



Example

Entity A bought a machine for \$18,000 on 1 January Year 1. The machine is to be depreciated on a straight-line basis over three years. Accounting profits are \$40,000 each year before charging depreciation on this machine. The relevant tax rate is 30%.

For tax purposes, 50% of the cost of the machine is allowable in Year 1, 35% in Year 2 and 15% in Year 3.

Required

Calculate the accounting profits, taxable profits and tax charge for each of Years 1 to 3.



Answer

	Year 1	Year 2	Year 3	Total
	\$	\$	\$	\$
Accounting profit after depreciation (40,000 – (18,000 ÷ 3))	34,000	34,000	34,000	102,000
Taxable profit				
Year 1: (40,000 – (18,000 × 50%))	31,000			
Year 2: (40,000 – (18,000 × 35%))		33,700		
Year 3: (40,000 – (18,000 × 15%))			37,300	
Total	<u> </u>	<u> </u>	<u> </u>	<u>102,000</u>
Difference in profit figures	<u>3,000</u>	<u>300</u>	<u>(3,300)</u>	<u>0</u>
Difference in tax payable at 30%	900	90	(990)	0

These figures show that:

- Accounting profit and taxable profit in any single year are different.
- In this example, if tax is paid on accounting profits, there would be a tax charge of \$10,200 (= \$34,000 × 30%) each year. Since accounting profits are the same in each year, it might seem reasonable to expect that the total tax charge should also be the same in each year.

- However the tax payable will be \$9,300 in Year 1 ($= \$31,000 \times 30\%$), \$10,110 in Year 2 ($= \$333,700 \times 30\%$) and \$11,190 in Year 3 ($= \$37,300 \times 30\%$).
- Due to taxable temporary differences, the tax actually payable in each year differs from the amount of tax that would be expected, if tax is based on accounting profits.
- Deferred tax is a means of making adjustments to the tax charge for the year, so that the total tax charge reflects the accounting profit (ignoring permanent differences).
- In this example, there should be a deferred tax charge of \$900 in Year 1, a deferred tax charge in Year 2 of \$90 and a reduction in deferred tax (adding to profit) in Year 3 of \$990. As a result of these deferred tax adjustments, the total tax charge will be \$10,200 in each year ($\$9,300 + \900 in Year 1, $\$10,110 + \90 in Year 2 and $\$11,190 - \990 in Year 3).

When deferred tax for a period is a positive amount, a deferred tax liability is created, and is reported in the statement of financial position as well as in the total tax charge for the year. When deferred tax is a negative amount, an existing deferred tax liability is reduced or a deferred tax asset is created.

3.2 Accounting for temporary differences: deferred tax account

IAS12 requires a **deferred tax liability to be set up for all taxable temporary differences**. This should be separately disclosed in the statement of financial position in accordance with IAS1 **Presentation of financial statements**. This deferred tax liability is usually shown within non-current liabilities.

The charge (or credit) for deferred tax should be recognised within the total tax charge for the period. As indicated above:

- Increases in deferred tax are added to the total reported tax charge for the year.
- Reductions in deferred tax are subtracted from the total reported tax charge for the year.

Deferred tax is increased when, due to temporary timing differences, the current tax calculated on taxable profits is less than what the current tax would have been if calculated on accounting profits.

Similarly, deferred tax is reduced when, due to temporary timing differences, the current tax calculated on taxable profits is higher than what the current tax would have been if calculated on accounting profits.

Deferred tax liabilities and assets

A deferred tax liability represents the fact that due to temporary timing differences, current tax charges have been lower than they would be if tax were computed on the accounting profits.

In the previous example, a deferred tax liability should be recognised at the end of Year 1. The amount of deferred tax at the end of Year 1 is \$900. Because less tax has been paid now, more tax will need to be paid in the future.

	\$	\$
Dr Taxation expense	900	
Cr Deferred tax liability		900

The deferred tax charge of \$900 is included within the total tax charge for the year. The deferred tax liability of \$900 is recognised in the statement of financial position.

At the end of Year 2 the deferred tax liability will be adjusted upwards by \$90, to \$990, and deferred tax of \$90 will be included in the total tax charge for the year.

	\$	\$
Dr Taxation expense	90	
Cr Deferred tax liability		90

At the end of Year 3, there is no longer any need to recognise an amount for deferred tax, because cumulative taxable profits have now 'caught up with' cumulative accounting profits. Therefore the liability is reduced to \$0.

	\$	\$
Dr Deferred tax liability	990	
Cr Taxation expense		990

The reduction in deferred tax is included within the total tax charge for the year, reducing the total tax charge for the year.

In explaining deferred tax, the example has used a single asset as illustration. In practice, similar calculations must be made for all non-current assets, and the increase or reduction in the deferred tax liability is a total amount.

In addition, other temporary timing differences (in addition to differences between tax allowable depreciation and accounting depreciation) may give rise to a deferred tax liability.

3.3 The basic principle of IAS12

In the above example, we looked at the differences between 'accounting profits' and 'taxable profits' in order to understand how a deferred tax liability might arise.

The terminology used in IAS12 is different. IAS12 refers to the **tax base** of assets or liabilities and it uses the **liability method** to calculate a provision for deferred tax. An asset's **tax base** is the amount at which it is valued for tax purposes.

The liability for deferred tax is based on differences between:

- **values in the statement of financial position** (carrying values, sometimes referred to as net book values), and
- **tax bases** (sometime referred to as tax values or tax written-down values).

Temporary differences are the differences between the carrying values of an entity's assets and their tax bases.

The basic principle of IAS 12 is that the tax effects of transactions should be reported in the same accounting period as the transactions themselves.

Therefore deferred tax is recognised **in full** on all temporary differences.

3.4 Further examples of when deferred tax might arise

Because the tax treatment of items varies from country to country, any examination question will have to specify the tax treatment of particular items. However, the following examples from IAS12 illustrate the types of situation you might be required to deal with in your examination.

Interest receivable

Interest may be received in arrears, leading to a receivable in the statement of financial position. However, this interest may not be taxable until the cash is received.



Example

Entity B includes interest receivable of \$4,000 in its financial statements at 31 December Year 1. Interest is not taxed until it is received. The relevant tax rate is 30%.

Required

Calculate the deferred tax liability at 31 December Year 1.



Answer

The interest receivable of \$4,000 is included in income for Year 1. However, tax on the interest income is not included in current tax for Year 1, which means that taxable profits in Year 1 will be higher than accounting profits by \$1,200 (= \$4,000 × 30%).

When the interest is received (in Year 2) taxable profits will be higher than accounting profits and therefore more tax will be payable.

A deferred tax liability of \$1,200 should therefore be recognised in Year 1, and deferred tax of \$1,200 included in the total tax charge for the year.

The liability will reverse to \$0 in Year 2, and the net tax charge in Year 2 will be computed by subtracting the reduction in the deferred tax liability from the current tax charge for Year 2.

Development costs

In calculating accounting profits, development costs may be capitalised and amortised (in accordance with IAS38). However, tax relief may be given for the development costs as they are paid.



Example

In the year ended 30 June Year 1, Entity C incurred development costs of \$320,000. These were capitalised in accordance with IAS38, with an amortisation charge of \$15,000 in Year 1. Development costs are an allowable expense for tax purposes in the period in which they are paid. The relevant tax rate is 30%.

Required

Calculate the deferred tax liability at 30 June Year 1.



Answer

The charge for development costs in Year 1 in the financial accounts is the amortisation charge of \$15,000. However, total development costs were \$320,000, attracting tax relief in full at the rate of 30%. Taxable profits will therefore be much lower than accounting profits in Year 1.

The development costs incurred but not yet amortised of \$305,000 should be deducted from accounting profits to arrive at taxable profits. In future years, when the remaining amortisation charges are added back to accounting profits to arrive at taxable profits, taxable profits will be higher and therefore more tax will be payable.

A deferred tax liability should therefore be set up for $\$305,000 \times 30\% = \$91,500$.

This calculation may be presented more completely in either of two ways:

	\$
Accounting profit reduced for development costs amortisation by:	(15,000)
Taxable profit reduced for development costs by:	(320,000)
Difference	(305,000)
Deferred tax liability ($\times 30\%$)	\$91,500

Alternatively:	\$
Asset value in statement of financial position ($\$320,000 - \$15,000$)	(305,000)
Tax written-down asset value	0
Difference	(305,000)
Deferred tax liability ($\times 30\%$)	\$91,500

3.5 Deferred tax assets

A temporary difference may sometimes result in a situation where taxable profits are higher than accounting profits. In such cases, because more tax is payable now and less tax will be payable later, a **deferred tax asset** should be created.

For example, interest may be paid to a third party in arrears but may only be allowable for tax purposes when the cash is paid over.

However, IAS12 states that a deferred tax asset should only be recognised to the extent that it is probable that the deferred tax can be recovered against future taxable profits. For example, if it is anticipated that the entity will only have taxable losses in the future then it may never be possible to recover the deferred tax asset and the asset should not be recognised.

Where a deferred tax asset is recognised it should be:

- separately disclosed in the statement of financial position in accordance with IAS1 **Presentation of financial statements**
- reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that it can be recovered against future taxable profits.

3.6 Deferred tax relating to revaluations

When an item is recognised in other comprehensive income, such as the revaluation of a non-current asset, there might be an associated tax charge or tax credit.

IAS12 comments that, in the case of assets carried at fair value, the difference between the carrying amount of a revalued asset and its tax base (i.e. written down tax value) is a temporary difference that gives rise to a deferred tax liability or asset. 'This is true even if the entity does not intend to dispose of the asset.'

If the asset is eventually sold at its revalued amount, additional tax will be payable. Therefore, on revaluation, a deferred tax liability is set up. This is calculated as follows.

Revaluation surplus × Tax rate = Deferred tax liability

The double entry is:

	\$	\$
Dr Revaluation reserve	X	
Cr Deferred tax liability		X



Example

A company recently re-valued a non-current asset from its carrying amount of \$300,000 to a revalued amount of \$400,000. The revaluation surplus is \$100,000. The tax rate is 25%.

On revaluation, a deferred tax liability should be created. This is \$25,000 (= 25% × \$100,000). The balance on the revaluation reserve is \$75,000 (= the revaluation of \$100,000, minus the deferred tax liability of \$25,000).

The increase in the deferred tax liability is reported in other comprehensive income as the tax charge associated with the revaluation of the asset.

However, when the asset is eventually sold, and the tax on the gain is based on the historical cost of the asset, the deferred tax liability is reduced to \$0, reducing the total reported tax charge for the year in which the disposal occurs.

3.7 Deferred tax in the examination

It is possible that you will be given a question specifically on deferred tax in your examination, but it is perhaps more likely that you will be given a question in which deferred tax is one of several items to consider.

For example, you might be given information in a question about the deferred tax liability at the beginning of the financial year for a company, and also information to enable you to calculate the deferred tax liability at the end of the year, and the amount of deferred tax to include in profit or loss or in other comprehensive income for the year.



Example

Entity XYZ had a deferred tax balance of \$6 million at the beginning of its financial year, on 1 January.

At 31 December, there were \$45 million of taxable temporary differences, of which \$10 million related to a gain on the revaluation of a non-current asset. The income tax rate is 20%.

How should deferred tax be reported in the financial statements for the year?



Answer

We need to establish the amounts for deferred tax to include in:

- (a) the statement of financial position at the end of the year
- (b) the tax charge in profit or loss for the year
- (c) other comprehensive income for the year.

Statement of financial position

Taxable temporary differences at the end of the year are \$45 million and the tax rate is 20%.

Therefore there should be a deferred tax liability of \$9 million in the statement of financial position at the end of the year.

Deferred tax in the tax charge in profit or loss for the year

Of the total taxable temporary differences, \$10 million relates to the revaluation gain, which is other comprehensive income. This means that taxable temporary differences relating to profit and loss are \$35 million (= \$45 million - \$10 million) and deferred tax on this (at 20%) is \$7 million.

The deferred tax balance at the beginning of the year was \$6 million. There has been an increase of \$1 million in deferred tax that should be included in the total tax charge for the year for inclusion in profit or loss.

Deferred tax in other comprehensive income

Other comprehensive income for the year includes the revaluation gain of \$10 million, for which the related deferred tax is \$2 million. Other comprehensive income should report the revaluation gain of \$10 million less the related deferred tax of \$2 million.

3.8 Other methods of accounting for deferred tax

IAS12 requires **full provision** to be made for deferred tax. This method is:

- easy to understand
- allows few opportunities for manipulation.

Two other methods of accounting for deferred tax are also theoretically possible, but they are **not permitted by IAS12**.

- The **nil provision method** makes no provision for deferred tax. This method is inconsistent with the accruals concept.
- The **partial provision** method only makes provision for deferred tax to the extent that a liability is actually expected to arise. For example, perhaps an entity expects to invest increasing amounts of money each year in property, plant and equipment, so that the additions to the total deferred tax provision will always exceed the 'reversals'. Under the partial provision method, in this situation, no liability for deferred tax would be recognised

The main problem with the partial provision method is the subjectivity involved in making the decision about whether a deferred tax liability will actually arise. This gives scope for manipulation of the reported accounting profits.

Presentation and disclosure requirements of IAS12

- Presentation requirements
- Disclosure requirements

4 Presentation and disclosure requirements of IAS12

4.1 Presentation requirements

The major components of **tax expense** (or tax income) should be disclosed separately. As indicated earlier, current and deferred tax should be recognised:

- in profit or loss for the period, except to the extent that the tax arises from a transaction or event classified as other comprehensive income or recognised directly in equity
- in other comprehensive income, if it relates to an item of other comprehensive income
- recognised directly in equity, if it relates to an item that is recognised directly in equity.

Current tax assets and **current tax liabilities** are included as current assets and current liabilities in the statement of financial position. Current tax assets and current tax liabilities should be **offset** against each other **only if** the entity:

- has a legally enforceable right of set-off, and
- either intends to settle the tax receivable/payable on a net basis, or to realise the tax asset and settle the tax liability simultaneously.

Deferred tax assets and deferred tax liabilities are also included as assets and liabilities in the statement of financial position.

4.2 Disclosure requirements

IAS12 requires additional disclosures in notes to the financial statements. These include:

- The major components of the tax expense (or income) for the financial period. These include:
 - current tax
 - the under-provision or over-provision for current tax from prior periods
 - deferred tax due to temporary differences
 - possibly, deferred tax due to changes in tax rates or the introduction of new taxes.

Illustration:

	\$
Current tax for the year	101,500
Over-provision of tax in the previous year	(32,000)
Deferred tax	<u>56,000</u>
Total tax charge	<u>125,500</u>

- The total current tax and deferred tax charged (or credited) directly to equity.
- The amount of tax relating to each component of other comprehensive income
- A 'tax reconciliation'. This **either**
 - reconciles the accounting profit multiplied by the applicable tax rate to the tax expense, **or**
 - reconciles the average effective tax rate to the applicable tax rate.
- An explanation of changes in the applicable tax rate, compared to the previous accounting period.

Reporting of non-group financial statements

Contents

- 1 The examination question on non-group financial statements
- 2 Example 1: Preparing financial statements from a trial balance
- 3 Example 2: Re-stating draft financial statements

The examination question on non-group financial statements

- The ACCA approach to examining the syllabus
- Developing an approach to an answer

1 The examination question on non-group financial statements

1.1 The ACCA approach to examining the syllabus

The syllabus for the F7 paper states that the second question in the paper will test the reporting of non-group financial statements. This means that you will normally be required to prepare the financial statements of a single company in accordance with international accounting standards.

The question may take either of the following forms:

- Prepare financial statements from information in a trial balance together with some supplementary information
- Re-state draft financial statements by making adjustments and corrections.

This type of question has two aims.

One is to test your ability to present financial statements in accordance with the requirements of IAS1. You might be required to prepare a statement of financial position and/or either a statement of comprehensive income or just the income statement element of a statement of comprehensive income. You might also be expected to present a statement of changes in equity, or calculate the earnings per share.

The second aim of such questions is to test your understanding of a range of accounting standards, by expecting you to make adjustments so that the reported figures in your financial statements comply with the relevant standard. You will therefore apply your understanding of a number of different topics that have been covered in the previous chapters of this text.

The purpose of this chapter is to provide some guidance on how to deal with this type of examination question.

1.2 Developing an approach to an answer

To answer this type of question, you are strongly advised to present clear workings, so that for each accounting adjustment that you make, the marker can see clearly what you are trying to do. As a general rule, you should be able to deal with each adjustment individually. The adjustments you need to make will be:

- Normal end-of-year adjustments, such as calculations for depreciation charges and any accruals or prepayments

- Adjustments for which specific information is given in the question: you will need to consider the implications of each item of information provided, and its effect on:
 - valuations of assets and/or liabilities in the statement of financial position
 - profit or loss
 - other comprehensive income.

You will also need to remember that when you make any adjustments, you might need to think about both:

- income or expense (or gain or loss) and
- the value of an asset or liability in the statement of financial position.

This chapter uses two examination-style questions as examples of the approach you should take.

Example 1: Preparing financial statements from a trial balance

- The question
- Preparing an answer: workings
- Preparing a statement of comprehensive income
- Preparing the statement of financial position
- Preparing the statement of changes in equity

2 Example 1: preparing financial statements from a trial balance

2.1 The question

This question is a bit longer than a normal examination question, because it includes a requirement for a statement of comprehensive income and a SOCIE, as well as a statement of financial position.

The following trial balance relates to Statis, a public listed company, at 30 June 2009.

	\$000	\$000
Cost of sales	148,000	
Operating expenses	61,000	
Loan interest paid (see note (1))	1,200	
Rental of vehicles (see note (2))	4,800	
Revenue		303,000
Investment income		1,800
30-year leasehold property at cost (see note (4))	240,000	
Plant and equipment at cost	201,000	
Accumulated depreciation at 1 July 2008:		
- leasehold property		32,000
- plant and equipment		81,000
Investments at amortised cost	36,000	
Equity shares of \$1 each, fully paid		150,000
Retained earnings as at 1 July 2008		65,600
3% loan notes (see note (1))		40,000
Deferred tax balance at 1 July 2008 (see note (5))		13,500
Inventory at 30 June 2009	21,000	
Trade receivables	48,400	
Trade payables		14,200
Bank		2,300
Suspense account (see note (6))		58,000
	761,400	761,400

The following notes are relevant.

- (1) The 3% loan notes were issued on 1 July 2008. They are redeemable on 30 June 2013 at a large premium to nominal value. The large premium is due to the fact that a low nominal rate of interest is payable on the notes. It has been calculated that the effective interest rate on these loan notes is 5% per year.
- (2) There are two separate contracts for rental of vehicles. Taking advice from the external auditors, the finance director of Stasis has agreed that some of rental contracts should be treated as finance leases. Of the total rental cost of vehicles in the trial balance, \$4 million relates to a finance lease rather than an operating lease or rental arrangement. The finance lease was entered into on 1 July 2008 which was when the \$4 million was paid. The finance lease agreement is for a four-year period in total, and there will be three more annual payments in advance of \$8 million, payable on 1 October in each year. The vehicles in the finance lease agreement had a fair value of \$24 million at 1 July 2008. The interest rate implicit in the lease is 10% per year. The other contract for vehicle rental is an operating lease and the rental payment should be charged to operating expenses. (Note: You are not required to calculate the present value of the minimum lease payments for the finance lease.)
- (3) Other plant and equipment is depreciated at 15% per year by the reducing balance method.

All depreciation of property, plant and equipment should be charged to cost of sales.

- (4) On 30 June 2009 the leasehold property was re-valued to \$250 million and the directors wish to incorporate this re-valuation in the financial statements.
- (5) The provision for income tax for the year ended 30 June 2009 has been estimated at \$27.5 million. At 30 June 2009 there are taxable temporary differences of \$110 million. Of these \$50 million relate to the revaluation of the leasehold property (see note (2) above). The rate of income tax on profits is 20%.
- (6) The suspense account balance can be reconciled from the following transactions.

The **payment of a dividend** in July 2008. This was calculated to give a 5% yield on the company's share price as at 30 June 2008. The share price as at this date was \$4.00.

The **net receipts from a rights issue of shares** in March 2009. The issue was of one new share for every five held at a price of \$3.00 per share. The issue was fully subscribed. The expenses of the share issue were \$2 million. These should be charged against share premium.

Note that the cash entries for these transactions have already been fully accounted for.

Required

- (a) Prepare a statement of comprehensive income for Stasis for the year to 30 June 2009.
- (b) Prepare a statement of financial position for Stasis as at 30 June 2009
- (c) Prepare a statement of changes in equity for the year to 30 June 2009.

(Total: 30 marks)**2.2 Preparing an answer: workings**

To prepare the financial statements, several adjustments have to be made. You should work through each item and try to identify the adjustments that are required. Everything in this question has been covered by a previous chapter in this study text.

Loan notes

The loan notes are a financial liability and loans should be valued at actuarial cost. Although the nominal rate of interest is 3%, the effective rate of interest is 5% (given in the question) because there will be a high premium payable at redemption.

The following calculation is required to establish the valuation of the loan notes in the end-of-year statement of financial position (at amortised cost) and the full finance charge for the loan notes for the year.

	Liability at beginning of year	Finance charge at 5%	Interest paid	Outstanding liability at end of year
	\$	\$	\$	\$
Year to 30 June 2009	40,000,000	2,000,000	(1,200,000)	40,800,000

Vehicles: finance lease

One of the contracts for vehicle rental should be treated as a finance lease, commencing on 1 July 2008. Rentals are payable in advance, with \$4 million paid on 1 July 2008 and \$8 million payable on 1 July 2009.

The vehicles should be included in the statement of financial position at cost (\$24 million) less accumulated depreciation. The finance lease is for four years, and in the absence of any other information it should be assumed that the cost of the vehicles will be depreciated by the straight-line method over the term of the lease. Annual depreciation for these vehicles is therefore \$6 million per year.

The liability for the finance lease obligation is calculated as follows, using the 10% implicit rate of interest given in the question:

	\$
Initial liability	24,000,000
Less: Payment in advance on 1 July 2008	<u>(4,000,000)</u>
	20,000,000
Interest to 30 June 2009 at 10%	<u>2,000,000</u>
Liability including interest at 30 June 2009	<u>22,000,000</u>

Of this total liability, some will be repaid with the next lease payment of \$8 million on 1 July 2009. This payment of \$8 million will include interest of \$2 million (calculated above), leaving a balance of \$6 million that represents repayment of the lease obligation. The total liability for the finance lease obligation can therefore be separated into a current liability and a non-current liability as follows.

	\$	\$
Total liability including interest at 30 June 2009 (see above)		22,000,000
Less: Interest payable on 1 July 2009	(2,000,000)	
Finance lease obligation repayable on 1 July 2009	<u>(6,000,000)</u>	
Lease payment due on 1 July 2009		<u>(8,000,000)</u>
Non-current liability: finance lease obligation at 30 June 2009		<u>14,000,000</u>

The lease payment of \$8 million due on 1 July 2009 is a current liability, but this should be divided between interest payable (\$2 million) and the finance lease obligation repayable (\$6 million).

Vehicles: operating lease

Total vehicle rentals were \$4,800,000. Of this total, \$4,000,000 relates to the finance lease. The remaining \$800,000 is for an operating lease, and this cost should be treated as an expense for the year. In the absence of any other information in the question, this operating lease rental will be included in other operating costs.

Revaluation of leasehold property

	\$
Leasehold property at cost	240,000,000
Accumulated depreciation at 30 June 2008	(32,000,000)
	208,000,000
Carrying amount at 30 June 2008	208,000,000
Depreciation in year to 30 June 2009 (\$240 million/30 years)	(8,000,000)
	200,000,000
Carrying amount at 30 June 2008	200,000,000
Re-valued amount of the leasehold	250,000,000
	50,000,000
Revaluation gain (before tax)	50,000,000

The revaluation gain is an item of other comprehensive income, but this will be reduced in the statement of comprehensive income by the amount of tax relating to the gain. At a tax rate of 20%, the related deferred tax is \$10 million.

The leasehold will be included in the statement of financial position at its revalued amount (\$250 million) with no accumulated depreciation.

Other plant and equipment: depreciation

	\$
Other plant and equipment at cost	201,000,000
Accumulated depreciation at 30 June 2008	(81,000,000)
	120,000,000
Carrying amount (net book value) at 30 June 2008	120,000,000
Depreciation in year to 30 June 2009 (15% of net book value)	(18,000,000)
	102,000,000
Carrying amount at 30 June 2008	102,000,000

Non-current assets: summary

We now have all the information needed to calculate the cost, accumulated depreciation and net book value of tangible non-current assets, and the depreciation charge for the year. We need to remember that there is a depreciation charge for the leasehold property, which was not revalued until 30 June 2009.

	Leasehold property	Leased vehicles	Other plant and equipment	Total
Depreciation charge for the year	\$000	\$000	\$000	\$000
	8,000	6,000	18,000	32,000
Cost	250,000	24,000	201,000	475,000
Accumulated depreciation	0	6,000	99,000	105,000
Net book value	250,000	18,000	102,000	370,000

The total depreciation charge for the year is \$32 million (\$8m + \$6m + \$18m) and this should be included in cost of sales, as stated in the question.

Tax

Total taxable temporary differences are \$110 million, but \$50 million of these relate to the revaluation of the leasehold property (other comprehensive income). This leaves \$60 million of temporary differences that are relevant for the tax charge in profit and loss.

	\$
Deferred tax at 30 June 2009 relating to profit and loss (\$60 million × 20%)	12,000,000
Deferred tax at 30 June 2008 (trial balance)	13,500,000
Reduction in deferred tax	1,500,000

This reduction in deferred tax reduces the total tax charge in profit or loss for the year.

	\$
Current tax (estimate)	27,500,000
Reduction in deferred tax	(1,500,000)
Total tax charge in profit or loss	26,000,000

In the **statement of financial position**, the liability for deferred tax should be for the total taxable temporary differences of \$110 million. Deferred tax liability = \$110 million × 20% = \$22 million.

Clearing the suspense account

The suspense account must be cleared, and the question provides the information needed to do this.

Dividend paid

Dividend paid = 150 million shares × 5% of \$4 = \$30 million.

The dividend paid is reported in SOCIE.

They reduce retained earnings in the statement of financial position.

Rights issue of shares

	Share capital	Share premium
	\$000	\$000
Trial balance	150,000	0
Rights issue (premium \$2 per share issued)	30,000	60,000
Issue expenses		(2,000)
As at 30 June 2009	30,000	58,000

Taken together, the increase in share capital and share premium (\$88 million) less the dividend payment of \$30 million are sufficient to clear the suspense account balance of \$58 million.

These workings make all the adjustments necessary for preparing a statement of comprehensive income for the year to 30 June 2009.

A statement of financial position cannot be prepared yet, because the amount of profit for the year has not yet been established.

2.3 Preparing a statement of comprehensive income

To prepare a statement of comprehensive income quickly in an examination, you need to know the format of the statement so that you can write it in your answer paper quickly. Some minor calculations are needed to complete the figures, but the relevant figures should be taken from the workings (above) and the trial balance.

Statis

Statement of comprehensive income for the year ended 30 June 2009

	\$000	\$000
Revenue		303,000
Cost of sales: (148,000 + depreciation 32,000)		<u>(180,000)</u>
Gross profit		123,000
Operating expenses: (61,000 + operating lease rental 800)		(61,800)
Investment income		1,800
Finance costs: Loan notes	(2,000)	
Finance lease	<u>(2,000)</u>	
		<u>(4,000)</u>
Profit before tax		59,000
Income tax expense		<u>(26,000)</u>
Profit for the year		33,000
Other comprehensive income		
Gain on leasehold revaluation	50,000	
Related taxation	<u>(10,000)</u>	
Other comprehensive income		<u>40,000</u>
Total comprehensive income for the year		<u>73,000</u>

2.4 Preparing the statement of financial position

Having calculated the profit for the year, we can now calculate retained earnings in the statement of financial position - not forgetting the dividend payment in the year.

	\$000
Retained earnings at 30 June 2008	65,600
Profit for the year after tax	33,000
Dividends paid	<u>(30,000)</u>
Retained earnings at 30 June 2009	<u>68,600</u>

We now have all the information needed to prepare a statement of financial position, using figures in the workings and the trial balance.

Statement of financial position as at 30 June 2009

	\$000	\$000
Non-current assets		
Property, plant and equipment: see workings		370,000
Investments at amortised cost		36,000
		<u>406,000</u>
Current assets		
Inventory	21,000	
Trade receivables	48,400	
		<u>69,400</u>
Total assets		<u>475,400</u>
Equity and liabilities		
Capital and reserves		
Equity shares of \$1 each fully paid		180,000
Share premium	58,000	
Revaluation reserve	40,000	
Retained earnings	68,600	
		<u>166,600</u>
		346,600
Non-current liabilities		
4% loan notes	40,800	
Deferred tax	22,000	
Finance lease obligation	14,000	
		<u>76,800</u>
Current liabilities		
Bank overdraft	2,300	
Trade payables	14,200	
Accrued lease finance costs	2,000	
Finance lease obligation	6,000	
Income tax payable	27,500	
		<u>52,000</u>
Total equity and liabilities		<u>475,400</u>

2.5 Preparing the statement of changes in equity

The statement of changes in equity can also be prepared. Again, you need to be familiar with the format of this statement so that you can write it down quickly in your answer paper in the examination.

Statis**Statement of changes in equity for the year ended 30 June 2009**

	Share capital	Share premium	Revaluation reserve	Retained earnings	Total
	\$000	\$000	\$000	\$000	\$000
Balance at 30 June 2008	150,000	0	0	65,600	215,600
Issue of share capital	30,000	58,000			88,000
Dividend payments				(30,000)	(30,000)
Profit for the year				33,000	23,000
Revaluation of leasehold			40,000		40,000
Balance at 30 June 2009	180,000	58,000	40,000	88,600	346,600

Example 2: Re-stating draft financial statements

- The question
- Preparing an answer: workings
- Preparing a re-drafted statement of comprehensive income
- Preparing a re-drafted statement of financial position
- Preparing a re-drafted statement of financial position

3 Example 2: re-stating draft financial statements

3.1 The question

A question that asks you to re-draft a set of financial statements will begin with the draft financial statements and some additional information.

The summarised draft financial statements of PRD are shown below.

PRD

Income statement for the year ended 30 June 2009

	\$000
Revenue (note 1)	4,925
Cost of sales: (note 2)	(3,100)
Gross profit	1,825
Operating expenses	(600)
Investment property rental income	30
Finance costs	(55)
Profit before tax	1,200
Income tax expense	(300)
Profit for the year	900

PRD

Statement of financial position as at 30 June 2009

	\$000	\$000
Non-current assets		
Property, plant and equipment		7,400
Investment property (note 3)		1,800
		9,200
Current assets		1,500
Total assets		10,700

Equity and liabilities		
Capital and reserves		
Equity shares of \$0.50 each fully paid		1,600
Revaluation reserve	200	
Retained earnings (note 4)	7,650	
		<u>7,850</u>
		9,450
Non-current liabilities		
7% convertible bonds, redeemable 2012 (note 5)	500	
Deferred tax (note 6)	200	
		700
Current liabilities		<u>550</u>
Total equity and liabilities		<u>10,700</u>

The following information is also relevant.

- (1) The figure for revenue includes a transaction on 1 July 2008, involving the sale of goods to Leech Finance Company for \$400,000. The goods had a cost of \$150,000. Under the terms of the transaction, PRD has the right to buy back the goods on 30 June 2010 for \$484,000, at which time the goods are expected to have a value of \$550,000. The repurchase price of \$484,000 has been set so as to give Leech Finance a 10% per annum return.
- (2) The company has recognised from past experience that after the end of the reporting period, when annual bonuses have been paid, a large number of employees leave their job with the company and the company incurs substantial recruitment costs in order to replace the employees they have lost. As a result of this expected cost, the company has made an accrued charge of \$60,000 for contingent recruitment costs, and has included these in the cost of sales and as a current liability in the draft financial statements.
- (3) PRD owns two properties. One is an investment property that is rented to a tenant under an operating lease. PRD uses the fair value model for this property in accordance with **IAS40 Investment property**. The other property is a factory that has some office accommodation, which is used mainly for production operations but also as head office accommodation. The property is revalued to current value at the end of each year.

Details of the fair values of the properties are as follows.

	Investment property	Factory
	\$000	\$000
Valuation 30 June 2008	1,800	2,500
Valuation 30 June 2009	1,750	2,750

The valuations at 30 June 2009 have not been incorporated into the draft financial statements. In addition, depreciation of the factory of \$50,000 has

been charged in full to cost of sales, but 10% of this charge should have been made against operating expenses.

- (4) The balance of retained earnings has been derived as follows:

	\$000
Retained earnings at 30 June 2008	7,100
Profit for the year to 30 June 2009	900
Dividends paid in the year	(350)
Retained earnings at 30 June 2008	<u>7,650</u>

- (5) 7% convertible bonds 2012

The company issued \$500,000 of 7% convertible bonds on 1 July 2008. They are redeemable at par on 30 June 2012 or are convertible into new shares of the company at the rate of 25 shares for every \$100 nominal value of bonds. An equivalent 'straight' bond without the conversion option would have carried an interest rate of 10% rather than 7%. Interest of \$35,000 has been paid on the bonds and this is included in the finance charge in the draft financial statements.

The present value of \$1 receivable at the end of years 1 – 4 at discount rates of 7% and 10% are as follows.

End of:	7%	10%
Year 1	0.93	0.91
Year 2	0.87	0.83
Year 3	0.82	0.75
Year 4	0.76	0.68

- (5) At 30 June 2009 there are taxable temporary differences of \$800,000, excluding any further differences arising as a consequence of revaluation of the non-current assets, and the rate of taxation is 30%. The figure for deferred tax in the draft statement of financial position is the amount that was included in the financial statements as at 30 June 2008. No adjustment has been made for changes in the year to 30 June 2009.
- (6) Bonus issue;
During the year PRD made a bonus issue (scrip issue) of new shares, on the basis of one new share for every four shares held. This issue has not been recorded in the draft financial statements.

Required

Re-draft the financial statements of PRD and produce:

- (a) a statement of comprehensive income for the year to 30 June 2009
 (b) a statement of financial position as at 30 June 2009
 (c) a statement of changes in equity for the year to 30 June 2009.

(25 marks)

3.2 Preparing an answer: workings

The approach to answering this question is similar to the approach required to answer the previous example. Several adjustments have to be made and you should work through each item and try to identify the adjustments that are required. Everything in this question has been covered by a previous chapter in this study text, although many of the topics covered differ from those in Example 1.

Revenue

The 'sale' transaction to Leech Finance is not a proper sale. PRD will buy back the goods after two years. In effect, the 'sale' is simply a loan at 10% interest, where Leech holds the goods as collateral (security). The 'revenue' of \$400,000 should not be recognised.

Instead the transaction should be reported in the financial statements as a loan, repayable in 12 months.

- At an interest rate of 10%, a finance cost of \$40,000 should be included in finance costs for the year.
- There should be a liability in the statement of financial position, repayable in 12 months, of \$400,000 + \$40,000 accrued interest at 10% = \$440,000.

Cost of sales

Several adjustments are required for the cost of sales.

The 'sale' of goods to Leech Finance

The cost of sales will include the \$150,000 cost of the goods 'sold' to Leech, and cost of sales must therefore be reduced by this amount.

The goods should be recognised as a current asset in the statement of financial position at 30 June 2009, cost \$250,000.

Accrued charge for contingent costs

This charge does not meet the definition of a provision (or liability) because the costs do not arise out of a past event. The \$60,000 cannot be included in cost of sales.

The \$60,000 is also presumably in the figure for current liabilities if the statement of financial position, and it should be removed. **Current liabilities** will therefore be \$550,000 - \$60,000 = \$490,000.

Factory depreciation

The question also states that although factory depreciation of \$50,000 has been charged (to cost of sales), 10% of the charge should be for operating expenses (administration costs). \$5,000 of the cost should therefore be deducted from cost of sales and added to operating costs.

The costs of sales for the year are therefore as follows:

	\$000
As in the draft income statement	3,100
Remove cost of goods 'sold' to Leech	(150)
Remove accrued charge for contingent costs	(60)
Deduct depreciation cost re-classified as operating costs	(5)
Cost of sales	<u>2,885</u>

Properties

(1) Investment property

The investment property is valued at fair value. During the year to 30 June 2009, the property has fallen in value by \$50,000 (\$1,800,000 - \$1,750,000). This loss should be recognised in profit or loss.

(2) Factory

The factory is valued at fair value at the end of each year, which means that there will be a gain or loss on revaluation.

	\$000
Valuation at 30 June 2008	2,500
Depreciation charge for the year (given)	(50)
	<u>2,450</u>
Valuation at 30 June 2009	2,750
Revaluation gain before tax	<u>300</u>

The revaluation reserve will be increased by \$210,000 (= \$300,000 less tax at 30%) and the deferred tax liability increased by \$90,000.

7% convertible bond

A convertible bond is a compound financial instrument. The debt element and the equity element should be separated. The value of the debt element is calculated as the present value of a 'straight' bond redeemable at par after 4 years, using a discount rate of 10% because this is the yield that would apply to a 'straight bond'. The equity element is the residual value – i.e. the difference between the face value of the bond and the value of a straight bond.

Annual interest on the 7% bonds is $\$500,000 \times 7\% = \$35,000$.

	Cash flows	Discount factor at 10%	Present value
	\$000		\$000
Year 1 interest	35	0.91	31.9
Year 2 interest	35	0.83	29.0
Year 3 interest	35	0.75	26.3
Year 4 interest and redemption	535	0.68	363.8
Value as a straight bond			451.0
Nominal value of convertibles			500.0
Equity component (residual amount)			49.0

There is an interest charge of \$35,000 included in finance costs in the draft accounts, but the actual interest costs should be calculated as 10% of the value of the debt element of \$451,000. The finance charge should therefore be \$45,100 – say \$45,000 – not \$35,000. The finance costs for the year should therefore be increased by \$10,000 (\$45,000 - \$35,000).

The additional \$10,000 finance cost should be treated as an accrual, and added to the carrying amount of the debt. The debt element of the convertible bond should therefore be $\$451,000 + \$10,000 = \$461,000$.

Finance costs

The finance costs for the year need to be adjusted from the figure in the draft financial statements. There are two adjustments to make, both referred to in earlier workings.

The 'sale' of goods to Leech Finance should be treated as a loan at 10% interest. The liability is increased from the original amount of the loan (\$400,000) to \$480,000 – as indicated earlier – and there is 'loan' interest of \$40,000 to charge against profit. There is also an additional charge of \$10,000 for interest on the convertible bonds, as explained earlier.

Finance costs	\$000
As in the draft financial statements	55
Interest cost on loan from Leech	40
Additional interest cost for convertible loan	10
	105

Taxation

	\$000
Taxable temporary differences at 30 June 209, excluding property revaluation	800
Deferred tax liability on these differences at 30%	240
Deferred tax liability in the draft accounts	<u>200</u>
Increase in deferred tax, to include in profit or loss for the year	<u>40</u>
Taxable temporary differences at 30 June 209, excluding property revaluation	800
Revaluation gain	300
Total taxable temporary differences	<u>1,100</u>
Deferred tax liability at 30% (statement of financial position)	<u>330</u>

Bonus issue of shares

As a result of the 1 for 4 bonus issue of shares, issued share capital increases from \$1,600,000 to \$2,000,000. The increase in issued shares by \$400,000 would be set off against share premium, if any share premium existed. Since there is no share premium reserve, the \$400,000 should be set off against retained earnings.

3.3 Preparing a re-drafted statement of comprehensive income

The information is now available to prepare re-drafted financial statements. However, remember to adjust the operating expenses for the \$5,000 portion of the factory depreciation charge.

PRD**Statement of comprehensive income for the year ended 30 June 2009**

	\$000	\$000
Revenue (4,925 – 400)		4,525
Cost of sales		<u>(2,885)</u>
Gross profit		1,640
Operating expenses: (600 + depreciation 5)		(605)
Investment property		
Rental income	30	
Loss on adjustment to fair value	<u>(50)</u>	
		(20)
Finance costs		<u>(105)</u>
Profit before tax		910
Income tax expense (300 + 40 deferred tax)		<u>(340)</u>

Profit for the year		570
Other comprehensive income		
Gain on factory revaluation	300	
Related taxation	<u>(90)</u>	
Other comprehensive income		<u>210</u>
Total comprehensive income for the year		<u>780</u>

3.4 Preparing a re-drafted statement of financial position

We also have most of the figures needed to assemble the statement of financial position, but the figure for retained earnings must be established. This should be done by starting with the retained earnings at the start of the year, and making the necessary adjustments for profit and dividends, and also the bonus issue of shares.

Retained earnings	\$000
At 1 July 2008	7,100
Profit for the year	510
Dividends paid	(350)
Bonus issue of shares	<u>(400)</u>
	<u>6,860</u>

You also need to remember the equity element in the convertible bonds.

PRD

Statement of financial position as at 30 June 2009

	\$000	\$000
Non-current assets		
Property, plant and equipment (7,400 + 300 factory revaluation)		7,700
Investment property		<u>1,750</u>
		9,450
Current assets (1,500 + inventory with Leech 120)		<u>1,620</u>
Total assets		<u>11,070</u>
Equity and liabilities		
Capital and reserves		
Equity shares of \$0.50 each fully paid		2,000
Equity element in convertible bonds		49
Revaluation reserve (200 + 210)	410	
Retained earnings	<u>6,860</u>	
		<u>7,270</u>
		9,319

Non-current liabilities		
7% convertible loan note	451	
Deferred tax	330	
	<u> </u>	781
Current liabilities		
'Loan' from Leech Finance	480	
Other current liabilities (550 – 60)	490	
		<u>970</u>
Total equity and liabilities		<u>11,070</u>

2.5 Preparing the statement of changes in equity

The statement of changes in equity can also be prepared. Again, you need to be familiar with the format of this statement so that you can write it down quickly in your answer paper in the examination.

PRD

Statement of changes in equity for the year ended 30 June 2009

	Share capital	Equity in bonds	Revaluation reserve	Retained earnings	Total
	\$000	\$000	\$000	\$000	\$000
Balance at 30 June 2008	1,600	0	200	7,100	8,900
Bonus issue	400			(400)	0
Dividend payments				(350)	(350)
Issue of convertible bonds		49			49
Profit for the year				510	510
Revaluation of factory			210		210
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Balance at 30 June 2009	2,000	49	410	6,860	9,319

Earnings per share

Contents

- 1 P/E ratio and earnings per share
- 2 Objective and scope of IAS33 and definitions
- 3 Calculating basic EPS
- 4 Diluted EPS
- 5 IAS33: Presentation and disclosure requirements
- 6 Earnings per share as a performance measure

P/E ratio and earnings per share

- Earnings per share
- The price/earnings ratio
- EPS and IAS33

1 P/E ratio and earnings per share

1.1 Earnings per share

Earnings are profits available for equity (ordinary shareholders). Earnings per share (EPS) is a measure of the amount of earnings in a financial period for each equity share. As its name implies, EPS is calculated as reported earnings divided by the number of ordinary shares in issue.

EPS = Total earnings/Number of ordinary shares

EPS is used by investors as a measure of the performance of companies in which they invest – or might possibly invest. Investors are usually interested in changes in a company's EPS over time – trends – and also in the size of EPS relative to the current market price of the company's shares.

1.2 The price/earnings ratio

The price/earnings ratio (P/E ratio) is a key stock market ratio. It is a measure of the company's current share price (market price) in relation to the EPS. The P/E ratio is calculated as follows.

$$\text{P/E ratio} = \frac{\text{Market value of share}}{\text{EPS}}$$

The P/E ratio can be used by investors to assess whether the shares of a company appear expensive or cheap. A high P/E ratio usually indicates that the stock market expects strong performance from the company in the future and investors are therefore prepared to pay a high multiple of historical earnings to buy the shares.

1.3 EPS and IAS33

Stock market investors monitor P/E ratios and EPS very closely. They compare the P/E ratios of different companies, and growth or decline in their EPS over time. Their investment decisions may be made on the basis of these comparisons.

EPS should therefore be calculated by all companies in a standard way, so that investors can obtain a reliable comparison between the EPS and P/E ratios of different companies. The rules for calculating EPS are set out in IAS33 **Earnings per share**.

The concept of EPS is quite simple. It is simply the amount of profit earned in the previous financial year for each ordinary share in issue. However, there are some complexities with the calculation of EPS, particularly when:

- new shares were issued during the year, or
- there is the possibility of a 'dilution' in the EPS in the future, due to the existence of 'potential ordinary shares'.

Preference shares and EPS

Preference shares are not ordinary shares. Since EPS is a measure of earnings per ordinary share in a financial year, preference shares are excluded from the number of shares.

The dividends paid to preference shareholders must therefore be excluded from the total earnings for the period. A broad definition of 'earnings' is therefore profit after tax less preference dividends paid.

Objective and scope of IAS33 and definitions

- Objective of IAS33
- Scope of IAS33
- Definitions

2 Objective and scope of IAS33 and definitions

2.1 Objective of IAS33

The objective of IAS33 is to set out principles for:

- the calculation of EPS, and
- the presentation of EPS in the financial statements.

The purpose of standardising the calculation and presentation of EPS is to make it easier for the users of financial statements to compare the performance of:

- different entities in the same reporting period, and
- the same entity for different reporting periods over time.

2.2 Scope of IAS33

IAS33 applies only to **publicly-traded entities** or those which are about to be publicly traded. A publicly-traded entity is an entity whose shares are traded by the investing public, for example on a stock exchange.

Most publicly-traded entities prepare consolidated financial statements as well as individual financial statements. When this is the case, IAS33 requires disclosure only of EPS based on the figures in the consolidated financial statements.

2.3 Definitions

An **ordinary share** is an equity instrument that is subordinate to all other classes of equity instruments.

The ordinary shares used in the EPS calculation are those entitled to the residual profits of the entity, after dividends relating to all other shares have been paid. As stated earlier, if you are given an examination question on this topic, preference shares are not ordinary shares because they give more rights to their holders than ordinary shares.

A **potential ordinary share** is a financial instrument or other contract that may entitle its holder to ordinary shares at some time in the future. The following examples of potential ordinary shares are given by IAS33:

- financial liabilities or equity instruments that are convertible into new ordinary shares at some time in the future (convertible debentures, convertible preference shares)

- share options and warrants. Options and warrants are financial instruments that give the holder the right (but not the obligation) to purchase new ordinary shares at some time in the future, at a fixed price
- shares that will be issued if certain contractual conditions are met, such as contractual conditions relating to the purchase of a business.

Basic and diluted earnings per share

IAS33 requires entities to calculate:

- the basic earnings per share on its continuing operations
- the diluted earnings per share on its continuing operations.

Additional requirements apply to earnings relating to discontinued operations.

Diluted EPS and basic EPS will usually differ when there are potential ordinary shares in existence.

Calculating basic EPS

- The calculation: total earnings
- Number of shares: issue of shares at full market price#
- Bonus issues of shares
- Rights issues of shares

3 Calculating basic EPS

3.1 The calculation: total earnings

Basic earnings per share is calculated by dividing the profit or loss on **continuing operations** by the weighted average number of ordinary shares in issue during the period.

The calculation of the basic EPS is therefore as follows.

$$\text{EPS} = \frac{\text{Net profit (or loss) attributable to ordinary shareholders during a period}}{\text{Weighted average number of ordinary shares in issue during the period}}$$

The net profit (or loss) attributable to ordinary shareholders during a period is commonly referred to as 'total earnings'. **Total earnings** are calculated as:

- the profit or loss from **continuing operations**
- after deducting tax and preference dividends (and in the case of consolidated financial statements, after excluding the earnings attributable to non-controlling interests or minority interests).

Total earnings include any income from associates (i.e. any share of profits of associates).

Where preference dividends are cumulative, they should be deducted from total earnings whether the dividend has actually been paid or not.

When there is a net loss, total earnings and the EPS are negative.

Earnings from discontinued operations are dealt with separately. An EPS from any **discontinued operations** must also be disclosed, but this does not have to be disclosed on the face of the statement of comprehensive income. Instead, it may be shown in a note to the financial statements.



Example

In the year ended 31 December Year 1, Entity G made profit after tax of \$350,000. Of this, \$300,000 was from continuing operations and \$50,000 from discontinued operations. It paid ordinary dividends of \$150,000 and preference dividends of \$65,000. Throughout the year it had 1 million ordinary shares in issue.

Required

Calculate the basic EPS for Entity G for the year ended 31 December Year 1.

a**Answer**

$$\begin{aligned} \text{EPS} &= \frac{\text{Net profit (loss) attributable to ordinary shareholders during a period}}{\text{Weighted average number of ordinary shares in issue during the period}} \\ &= \frac{\$300,000 - \$65,000}{1,000,000} \\ &= \$0.235 \text{ or } 23.5\text{c} \end{aligned}$$

3.2 Number of shares: issue of shares at full market price

The calculation of the basic EPS is more complex **when new shares have been issued during the financial year.**

Shares issued during a financial period should be included in the calculation of the weighted average number of shares. They should be included from the date that the consideration (payment from the shareholder) is received for the shares. This is because it is only from that date that the new shares are able to contribute to earnings (through investing the cash or other assets obtained as the proceeds from the share issue).

The starting point for the weighted average number of shares is the number of shares in issue at the beginning of the period. This is then adjusted for any shares issued during the period, to which a time weighting factor must be applied.

For example, if an entity with a financial year ending 31 December issues new shares on 1 October (= 9 months into the year), the number of new shares should be adjusted by a factor of $\times 3/12$.

e**Example**

Entity H has a financial year ending 31 December. On 1 January Year 1 there were 6,000,000 ordinary shares in issue. On 1 April, it issued 1,000,000 new shares at full market price. Total earnings in Year 1 were \$2,700,000.

Required

What was the EPS in Year 1?

a**Answer**

There are two methods of calculating the weighted average number of shares.

Method 1

		Weighted average number
Shares at 1 January Year 1		6,000,000
Shares issued on 1 April	$1,000,000 \times 9/12$	750,000
		<u>6,750,000</u>

EPS = $\$2,700,000 / 6,750,000$ shares = \$0.40 or 40c.

Method 2

With the following method, a weighted average number is calculated from each new issue of shares. A time factor is applied to the total number of shares after the new share issue. The time factor to apply is either:

- for the remaining number of months to the year end, or
- for the number of months to the next share issue, if this is sooner.

This method produces exactly the same result as Method 1.

Date	Detail	Number of shares	Time factor	Weighted average number
1 January	Brought forward	6,000,000	$\times 3/12$	1,500,000
1 April	Issue at full market price	<u>1,000,000</u>		
31 December	Carried forward	7,000,000	$\times 9/12$	5,250,000
				<u>6,750,000</u>

EPS = $\$2,700,000 / 6,750,000$ shares = \$0.40 or 40c.

Method 2 will be used in future examples in this chapter. It is probably easier to use than Method 1 when there are several issues of new shares during the financial year, and it is therefore the method that we recommend you should use.

e**Example**

Entity J has a financial year ending 31 December. On 1 January Year 3, there were 9,000,000 ordinary shares in issue. On 1 May, Entity J issued 1,200,000 new shares at full market price. On 1 October, it issued a further 1,800,000 shares, also at full market price. Total earnings in Year 3 were \$3,690,000.

Required

Calculate the EPS for the year to 31 December Year 3.

a**Answer**

Date	Detail	Number of shares	Time factor (see notes)	Weighted average number
1 January	Brought forward	9,000,000	× 4/12	3,000,000
1 May	Issue at full market price	1,200,000		
	Shares after the new issue	10,200,000	× 5/12	4,250,000
1 October	Issue at full market price	1,800,000		
31 Dec	Carried forward	12,000,000	× 3/12	3,000,000
				<u>10,250,000</u>

Notes

- (1) The first new share issue is in May, after 4 months. Therefore the number of shares at the beginning of the year is given a time factor of × 4/12.
- (2) There are 5 months between the two share issues, therefore the time factor to apply to the number of shares after the first issue is × 5/12.
- (3) The total number of shares in issue from 1 October to the end of the year (three months) is 12,000,000. These are given a time weighting of × 3/12.

$$\text{EPS} = \$3,690,000 / 10,250,000 = \$0.36.$$

3.3 Bonus issues of shares

A bonus issue of shares is also called a scrip issue or a capitalisation issue. It is an issue of new shares to existing shareholders, in proportion to their existing shareholding, for no consideration. In other words, the new shares are issued 'free of charge' to existing shareholders. The new shares are created by converting equity reserves instatement of financial position, often some or all of the share premium account, into ordinary share capital.

When there is a bonus issue of shares, the situation is different from a new issue of shares at full market price. With a bonus issue of shares, no cash is raised from the issue because the new shares are issued 'free'. Therefore the new shares do nothing to generate additional profits/earnings.

Unless a suitable adjustment is made to the EPS calculation, the comparison of EPS in the current year (after the bonus issue) with EPS in the previous year (before the bonus issue) will be misleading.

In order to ensure that the EPS in the year of the bonus issue is comparable with the previous year's EPS, IAS33 requires that the weighted average number of shares should be calculated as if the bonus shares had always been in issue. IAS33 states that: 'The number of ordinary shares outstanding before the [bonus issue] is adjusted for the proportionate number of shares outstanding as if the [bonus issue] has occurred at the beginning of the earliest period presented..' This means that:

- the current period's shares are adjusted as if the bonus shares were issued on the first day of the year
- the comparative EPS for the previous year is restated on the same basis.



Example

Entity H made a 1 for 4 bonus issue on 1 July Year 5. Its financial year ends on 31 December. The financial results for Entity H in Year 4 and Year 5 were as follows.

	Year 5	Year 4
Total earnings	\$2,100,000	\$2,000,000
Number of shares in issue at 31 December	5,000,000	4,000,000

The basic EPS could be calculated for the Year 5 financial statements as follows, by taking as the number of shares for the current period and the previous period the total number of shares after the bonus issue.

	Year 5	Year 4
Total earnings	\$2,100,000	\$2,000,000
Number of shares	5,000,000	5,000,000
	= \$0.42	= \$0.40

Another way of calculating the weighted average number of shares in the current year would be:

Date		Number of shares	Bonus fraction	Time factor	Weighted average number
1 January	Brought forward	4,000,000	× 5/4	× 6/12	2,500,000
1 July	Bonus issue	1,000,000			
	Shares after the new issue	5,000,000		× 6/12	2,500,000
					5,000,000

Comparative EPS for previous year

In the Year 4 financial statements, the EPS would have been reported as $\$2,000,000/4,000,000 = \0.50 , because there were only 4 million shares in issue in Year 4

In Year 5, we can calculate the comparative EPS for Year 4 (for the purpose of the Year 5 financial statements) by adjusting the original Year 4 EPS by the following factor:

$$\text{EPS reported last year} \times \frac{\text{Number of shares before the bonus issue}}{\text{Number of shares after the bonus issue}}$$

In this example, for every 4 shares in issue before the bonus issue, there are 5 in issue after the bonus issue. The comparative EPS for Year 4, for inclusion in the financial statements for Year 5, would therefore be:

$$\$0.50 \times 4/5 = \$0.40.$$



Example

The calculation of the weighted average number of shares can be complicated when there is another issue of shares **for cash** during the year, in addition to a bonus issue. In such cases, it is recommended that you use the Method 2 described above, as follows.

Entity J had 2,000,000 ordinary shares in issue on 1 January Year 2.

On 1 April Year 2, it issued 500,000 ordinary shares, at full market price.

On 1 July Year 2, there was a 1 for 2 bonus issue (= one new bonus share for every two shares held).

In Year 1, the EPS had been calculated as 0.25c.

The financial year ends on 31 December. In Year 1, the EPS had been calculated as 0.25c. In Year 2, total earnings were \$855,000.

Required

Calculate the EPS for the year to 31 December Year 2, and the comparative EPS figure for Year 1.



Answer

The weighted average number of shares in Year 2 is calculated as follows.

In every line in the table **before the bonus issue**, the number of shares is increased by a factor (a '**bonus fraction**') to allow for the bonus issue. The factor to apply is:

$$\times \frac{\text{Number of shares after the bonus issue}}{\text{Number of shares before the bonus issue}}$$

With a 1 for 2 bonus issue, the bonus issue adjustment fraction is $\times 3/2$. This is because for every 2 shares in issue before the bonus issue, there are 3 shares after the bonus issue.

Date	Detail	Number of shares	Time factor	Bonus fraction	Weighted average number
1 Jan	Brought forward	2,000,000	$\times 3/12$	$\times 3/2$	750,000
1 April	Issue at market price	<u>500,000</u>			
		2,500,000	$\times 3/12$	$\times 3/2$	937,500
1 July	Bonus issue (1 for 2)	<u>1,250,000</u>			
31 Dec	Carried forward	3,750,000	$\times 6/12$		<u>1,875,000</u>
					<u>3,562,500</u>

The weighted average number of shares for the EPS calculation for Year 2 is therefore 3,562,500.

EPS in Year 2 = $\$855,000 / 3,562,500 = \0.24 .

To restate the comparative EPS figure for Year 1, the original EPS figure of \$0.25 is adjusted by a factor $\times 2/3$, to allow for the 1 for 2 bonus issue.

The Year 1 EPS is therefore re-stated as:

$\$0.25 \times 2/3 = \0.1667 .

3.4 Rights issues of shares

A rights issue of shares is an issue of new shares for cash, where the new shares are offered initially to current shareholders in proportion to their existing shareholdings. The issue price of the new shares in a rights issue is always below the current market price for the shares already in issue.

Because rights issues are usually at less than full market price they include a bonus element. Since there is a bonus element in the issue price, an adjustment is needed for the EPS calculation, to ensure a fair comparison of the current year EPS with the previous year EPS.

Current year EPS

To adjust for the bonus element in the rights issue, the number of shares in the current financial year must be adjusted. You should multiply the number shares in issue before the rights issue by a factor (a 'rights factor') of:

$$\frac{\text{Actual cum rights price}}{\text{Theoretical ex rights price}}$$

Theoretical ex-rights price is explained and illustrated later.

Previous year EPS

In addition, to provide a fair comparison of the current year EPS with the previous year's EPS, the comparative EPS for the previous year is obtained by adjusting the EPS actually reported last year. The previous year's EPS is reduced by the following factor:

$$\frac{\text{Theoretical ex rights price}}{\text{Actual cum rights price}}$$

The **actual cum-rights price** is the market price of the shares before the rights issue.

The **theoretical ex-rights price** is the price that the shares ought to be, in theory, after the rights issue. It is a weighted average price of the shares before the rights issue and the new shares in the rights issue. If you are not sure how to calculate the theoretical ex-rights price, study the following example carefully.



Example

Entity L had 36,000,000 shares in issue on 1 January Year 2. It made a 1 for 4 rights

issue on 1 June Year 2, at a price of \$4 per share. The share price just before the rights issue was \$5.

Total earnings in the financial year to 31 December Year 2 were \$25,125,000. The reported EPS in Year 1 was \$0.64.

Required

Calculate the EPS for the year to 31 December Year 2, and the adjusted EPS for Year 5 for comparative purposes.

a

Answer

After the rights issue, there will be 1 new share for every 4 shares previously in issue

		\$
4 existing shares have a 'cum rights' value of	(4 × \$5)	20.00
1 new share is issued for		4.00
5 shares after the issue have a theoretical value of		24.00

Theoretical ex-rights price = \$24.00/5 = \$4.80.

					Weighted average number of shares
Date		Number of shares	Time factor	Rights fraction	
1 Jan	Brought forward	36,000,000	× 5/12	× 5.00/4.80	15,625,000
1 June	Rights issue (1 for 4)	9,000,000			
31 Dec	Carried forward	45,000,000	× 7/12		26,250,000
					41,875,000

EPS Year 2 = \$25,125,000/41,875,000 = \$0.60, or 60c

Comparative EPS in Year 1 = \$0.64 × (\$4.80/\$5.00) = \$0.6144 or 61.44c.

e

Example

Entity M had 3 million ordinary shares in issue on 1 January Year 7. On 1 April Year 7, it made a 1 for 2 rights issue of 1,500,000 ordinary shares at \$2 per share. The market price of the shares prior to the rights issue was \$5.

An issue of 400,000 shares at full market price was then made on 1 August Year 7.

In the year to 31 December Year 7, total earnings were \$1,746,875. In Year 6 EPS had been reported as \$0.35.

Required

Calculate the EPS for the year to 31 December Year 7, and the adjusted EPS for Year 6 for comparative purposes.

a**Answer**

After the rights issue, there will be 1 new share for every 2 shares previously in issue

		\$
2 existing shares have a 'cum rights' value of	(2 × \$5)	10.00
1 new share is issued for		2.00
3 shares after the issue have a theoretical value of		12.00

Theoretical ex-rights price = $\$12/3 = \4 .

Date		Number of shares	Time factor	Rights fraction	Weighted average number of shares
1 Jan	Brought forward	3,000,000	× 3/12	× 5/4	937,500
1 April	Rights issue (1 for 2)	1,500,000			
		4,500,000	× 4/12		1,500,000
1 August	Issue at market price	400,000			
		4,900,000	× 5/12		2,041,667
					4,479,167

EPS Year 7 = $\$1,746,875/4,479,167 = \0.39 , or 39c

EPS Year 6 = $\$0.35 \times 4.00/5.00 = \0.28 or 28c.

Diluted EPS

- The meaning of dilution
- IAS33 and diluted EPS
- Diluted EPS: convertible preference shares and convertible bonds
- Diluted EPS: options and warrants
- Potential ordinary shares that are not dilutive

4 Diluted EPS

4.1 The meaning of dilution

An entity might have some **potential ordinary shares**. When there are potential ordinary shares, there is a possibility that they will become actual ordinary shares at some time in the future.

For example, if an entity has issued some convertible bonds or convertible preference shares, these might be converted into ordinary shares at some time in the future. Similarly, holders of share options or warrants might exercise their right at a future date to subscribe for new shares at a fixed price.

If potential shares become actual ordinary shares, there is a possibility – perhaps a probability – that the EPS will be reduced because there will be a larger number of ordinary shares in issue.

Dilution will occur if the EPS is reduced as a consequence of potential ordinary shares becoming actual ordinary shares. (Note: ‘Dilution’ means ‘watering down’ or ‘reduction in strength’.)

4.2 IAS33 and diluted EPS

IAS33 requires publicly-traded companies to calculate a diluted EPS in addition to their basic EPS for the current year (with a comparative diluted EPS for the previous year), allowing for the effects of all dilutive potential ordinary shares.

Note: potential ordinary shares are ‘dilutive’ when there might have been a reduction or ‘dilution’ in EPS if they had been actual ordinary shares during the financial period.

Potential ordinary shares might not dilute the EPS. The diluted EPS should allow **only** for potential ordinary shares that would be dilutive.

Earnings should be adjusted to allow for the dividends or interest that have been recognised during the year for the potential ordinary shares, and for any other income or expense that would alter as a result of the conversion of the potential ordinary shares into actual ordinary shares.

The main items of dividend or interest to adjust for are dividends on convertible preference shares and interest on convertible debentures (convertible bonds). The dividend or interest reduces total earnings. However, if they had already been converted into ordinary shares (and the calculation of diluted EPS is based on this assumption) the dividends or interest would not have been payable. Total earnings would therefore have been higher. To calculate the diluted EPS, total earnings are adjusted to allow for this.

The weighted average number of shares must also be adjusted. The method of making this adjustment is different for:

- convertible bonds or convertible preference shares and
- share options or warrants.

4.3 Diluted EPS: convertible preference shares and convertible bonds

When there are convertible bonds or convertible preference shares, diluted EPS is calculated as follows, by making adjustments to total earnings and the number of shares in issue.

Basic assumption in calculating diluted EPS

It is assumed that all the convertible securities were converted into ordinary shares on the first day of the financial period, and on the most favourable terms available for the holders of the convertibles.

Total earnings

Total earnings must be adjusted. This is because the entity would not have to pay the dividend or interest on the convertible securities.

- For **convertible preference shares**, add back the preference dividend paid in the year. If the preference shares are converted, this dividend will no longer be paid. Total earnings will be increased by the preference dividend saved.

Adjusted total earnings = Actual total earnings + Convertible preference dividend

- For **convertible bonds**, add back the interest charge on the bonds in the year minus the tax relief relating to that interest. If the bonds are converted, this interest will no longer be paid. Total profits will increase by the interest saved, but total earnings will increase only by the interest saved less tax.

Adjusted total earnings = Actual total earnings + (Convertible bond interest – Tax on the interest).

Number of shares

The weighted average number of shares should be increased, by adding the maximum number of new shares that would be created if all the potential ordinary shares were converted into actual ordinary shares. The additional number of shares should normally be calculated on the assumption that they were in issue at the beginning of the year.



Example

A company has 12,000,000 ordinary shares in issue and \$4 million of 5% convertible bonds. As at 31 December Year 2, there have been no new issues of shares or bonds for several years. The bonds are convertible into ordinary shares in Year 3 or Year 4, at the following rates:

- At 31 December Year 3: 30 shares for every \$100 of bonds
- At 31 December Year 4: 25 shares for every \$100 of bonds.

Total earnings for the year to 31 December Year 2 were \$3,600,000. Total earnings for the previous year (Year 1) were \$3,300,000. Tax is payable at a rate of 30% on profits.

Required

Calculate the basic EPS and diluted EPS for Year 2, and the comparative figures for Year 1 (for reporting in the Year 2 financial statements).



Answer

Basic EPS:

- (1) Year to 31 December Year 2: $\$3,600,000 / 12 \text{ million} = \0.30
- (2) Year to 31 December Year 1: $\$3,300,000 / 12 \text{ million} = \0.275 .

Diluted EPS:

	Year 2	Year 1
	\$	\$
Actual earnings	3,600,000	3,300,000
Add back convertible bond interest (5% × \$4 million)	200,000	200,000
Minus tax at 30%	<u>(60,000)</u>	<u>(60,000)</u>
Adjusted total earnings	<u>3,740,000</u>	<u>3,440,000</u>
Number of shares		
Actual	12,000,000	12,000,000
Potential (4 million × 30/100)	<u>1,200,000</u>	<u>1,200,000</u>
	<u>13,200,000</u>	<u>13,200,000</u>
Diluted EPS	\$0.2833	\$0.2606

Note: The number of potential shares is calculated using the conversion rate of 30 shares for every \$100 of bonds, because this conversion rate produces more new shares than the other conversion rate, 25 shares for every \$100 of bonds.

New issue of convertibles in the year

If new convertibles are issued during the course of the year, the additional number of shares should be calculated only from the time that the convertibles were issued,

and a time factor should be applied to calculate a weighted average number of shares for the year.



Example

Entity N has 10,000,000 ordinary shares in issue. There has been no new issue of shares for several years. However, the entity issued \$2,000,000 of convertible 6% bonds on 1 April Year 5. These are convertible into ordinary shares at the following rates:

On 31 March Year 10	25 shares for every \$100 of bonds
On 31 March Year 11	20 shares for every \$100 of bonds
On 31 March Year 12	15 shares for every \$100 of bonds
On 31 March Year 13	10 shares for every \$100 of bonds

Tax is at the rate of 30%.

In the financial year to 31 December Year 6, total earnings were \$4,536,000. In the previous financial year to 31 December Year 5, total earnings were \$4,087,000.

Required

Calculate the figures that should be reported in the financial statements for the year to 31 December Year 6:

- the EPS for Year 6 and the comparative EPS figure for Year 5
- the diluted EPS for Year 6 and the comparative diluted EPS figure for Year 5.



Answer

- Basic EPS**

$$\text{Year 6} = \$4,536,000 / 10,000,000 = \$0.4536$$

$$\text{Year 5} = \$4,087,000 / 10,000,000 = \$0.4087.$$

- Diluted EPS**

Adjusted total earnings

		Year 6		Year 5	
	\$	\$	\$	\$	\$
Reported earnings		4,536,000		4,087,000	
Add back interest saved	120,000		90,000		
(\$2,000,000 × 6%):(9/12 × \$2,000,000 × 6%):					
Minus tax at 30%	(36,000)		(27,000)		
		84,000		63,000	
Adjusted total earnings		4,620,000		4,150,000	

Number of shares

The maximum number of new ordinary shares that might be created if the potential ordinary shares are converted is 25 new shares for every \$100 bonds. In a full year, this represents $\$2,000,000 \times 25/100 = 500,000$.

However, the bonds were issued during Year 6; therefore a time factor should be applied to calculate the 'diluted' number of shares in Year 6.

Year 7		Number of shares		
1 January	Brought forward			10,000,000
	Dilution			500,000
31 December				<u>10,500,000</u>

Year 6		Number of shares	Time factor	Weighted average number of shares
1 Jan	Brought forward	10,000,000	$\times 3/12$	2,500,000
1 April	Bond issue: dilution	<u>500,000</u>		
		<u>10,500,000</u>	$\times 9/12$	<u>7,875,000</u>
				<u>10,375,000</u>

Diluted EPS, Year 7 = $\$4,620,000/10,500,000 = \0.44

Diluted EPS, Year 6 = $\$4,150,000/10,375,000 = \0.40 .

4.4 Diluted EPS: options and warrants

A different situation applies with share options and share warrants. If these are exercised, the holders of the options or warrants will pay cash to obtain new ordinary shares.

- If the options or warrants are exercised, the entity will receive cash that it can invest to increase earnings. However, since the options or warrants have not yet been exercised, it is impossible to predict how total earnings will be affected when the cash is eventually received.
- The exercise price for the options or warrants will be less than the full market price for the shares. This means that there will be a bonus element in the issue.

These factors complicate the calculation of diluted EPS, but IAS33 has provided a solution, as follows.

- Calculate the number of shares that will be issued if all the options or warrants are exercised.
- Reduce this figure by the number of shares that could be purchased at full market price with the cash received from the exercise of the options or warrants.

The market price of the shares should be the average market price during the period (the financial year).

- This net figure is then added to the existing number of shares in issue, to obtain the total shares for calculating the diluted EPS.

e

Example

Entity P had total earnings during Year 3 of \$1,030,000.

It has 5,000,000 ordinary shares in issue. There are outstanding share options on 400,000 shares, which can be exercised at a future date, at an exercise price of \$2.50 per share. The average market price of shares in Entity P during Year 3 was \$4.

Required

Calculate the diluted EPS for Year 3.

a

Answer

Cash receivable on exercise of all the options = $400,000 \times \$2.50 = \$1,000,000$.

Number of shares this would buy at full market price in Year 3 = $\$1,000,000 / \$4 = 250,000$ shares.

	Shares
Options	400,000
Minus number of shares at fair value	<u>(250,000)</u>
Net dilution	150,000
Existing shares in issue	<u>5,000,000</u>
Total shares	<u>5,150,000</u>

Diluted EPS = $\$1,030,000 / 5,150,000 = \0.20 or 20c.

4.5 Potential ordinary shares that are not dilutive

If potential ordinary shares are not dilutive, they should be excluded from the calculation of the diluted EPS.

When there are several types of potential ordinary share in issue, they should be ranked in order of 'dilutiveness', with the most dilutive potential ordinary shares ranked first.

A diluted EPS should then be calculated in stages, taking in one potential ordinary share at a time, to establish whether any of them are not dilutive. An example might help to illustrate the technique to use.



Example

The following information relates to Entity Q for the year ended 31 December Year 5.

Number of ordinary shares in issue	10,000,000
Reported earnings in the year	\$1,500,000
Average market price of shares during the year	\$8

Potential ordinary shares:

Options	600,000 options, with an exercise price of \$6
4% convertible bond: \$5,000,000	Each bond is convertible in Year 10 into ordinary shares at the rate of 40 new shares for every \$100 of bonds
1,000,000 7% convertible preference shares of \$1 each	Each preference share is convertible in Year 9 into ordinary shares at the rate of 1 ordinary share for every 2 preference shares

Tax rate = 30%

Required

Calculate the diluted EPS for the year to 31 December Year 5.



Answer

If all the options are exercised, the cash received will be $600,000 \times \$6 = \$3,600,000$. This would purchase 450,000 shares ($\$3,600,000/\8) at the average market price in Year 5. The dilutive increase in the number of shares would therefore be $(600,000 - 450,000) = 150,000$.

	Increase in earnings	Increase in number of ordinary shares	Earnings per extra new share	Ranking in order of dilutiveness
Options	\$ 0	150,000	\$ 0.00	1 st
Convertible bonds ($4\% \times \$5,000,000$) less tax 30%	140,000	2,000,000	0.07	2 nd
Preference shares ($7\% \times \$1,000,000$)	70,000	500,000	0.14	3 rd

Taking these three dilutive potential ordinary shares in order of their ranking, we need to calculate the diluted EPS as follows.

	Earnings	Number of shares	EPS	
	\$		\$	
As reported, basic EPS	1,500,000	10,000,000	0.1500	
Options	<u>0</u>	<u>150,000</u>		
Diluted EPS, options only	1,500,000	10,150,000	0.1478	Dilutive
Convertible bonds	140,000	2,000,000		
Diluted EPS, options and convertible bonds	1,640,000	12,150,000	0.1350	Dilutive
Convertible preference shares	<u>70,000</u>	<u>500,000</u>		
Diluted EPS, options and all convertibles	1,710,000	12,650,000	0.1352	Not dilutive

The convertible preference shares are not dilutive, and the reported diluted EPS should be \$0.1350 (and **not \$0.1352**)

IAS33: presentation and disclosure requirements

- IAS33: Presentation requirements
- IAS33: Disclosure requirements
- Alternative measures of earnings per share

5 IAS33: Presentation and disclosure requirements

5.1 IAS33: Presentation requirements

An entity should present in the statement of comprehensive income:

- the basic EPS and
- the diluted EPS
- for the profit or loss from **continuing operations**.

For consolidated accounts, this is the EPS and diluted EPS attributable the owners of the parent company.

The basic EPS and diluted EPS should be presented with equal prominence for all the periods presented (the current year and the previous year). These figures are presented at the end of the statement of comprehensive income.

If the entity presents a separate statement for the components of profit or loss (i.e. a separate income statement):

- the EPS and diluted EPS should be shown in this statement, and
- not in the statement of comprehensive income.

If there is a **discontinued operation**, the basic EPS and diluted EPS from discontinued operation should be shown either on the face of the statement of comprehensive income or in a note to the financial statements.

The basic and the diluted EPS should be presented, even if it is a negative figure (= even if it is a loss per share).

5.2 IAS33: Disclosure requirements

IAS33 also requires disclosure in a note to the financial statements of the following:

- The total amounts used as the numerators (= total earnings figures) to calculate the basic EPS and diluted EPS, and a reconciliation of these numerator figures to the profit or loss for the period
- The total amounts used in the denominators (= weighted average number of shares) to calculate the basic EPS and diluted EPS, and a reconciliation of these two denominator figures to each other.

5.3 Alternative measures of earnings per share

IAS 33 allows an entity to disclose an alternative measure of EPS in addition to the EPS calculated in accordance with IAS 33. For example, EPS could be calculated after adjusting earnings for large and unusual items.

If an alternative EPS figure is presented, IAS 33 states that:

- a reconciliation must be shown between the earnings figure used in the alternative measure and the amounts shown in the statement of comprehensive income
- the alternative EPS must use the same weighted average number of shares as the IAS 33 calculation
- basic and diluted EPS should both be disclosed with equal prominence, and
- the alternative figure must only be shown in the notes, **not** on the face of the statement of comprehensive income.

Earnings per share as a performance measure

- Earnings per share and trends
- Limitations of earnings per share

6 Earnings per share as a performance measure

6.1 Earnings per share and trends

Investors and their advisers pay close attention to an entity's net profit for the period. However, profit for the period can include large and unusual items and also the results of discontinued operations. This may make it volatile: liable to fluctuate rapidly up and down. Users can then find it difficult to assess trends in the profit figure or to use the current year's profit to predict an entity's performance in future years.

The trend (improvement or deterioration) in an entity's published EPS figure can sometimes be a more reliable indicator of future performance. There are a number of reasons for this.

- The standard version of both basic and diluted EPS is based on profit from continuing operations. This means that the results of discontinued operations (which may distort total profit) are excluded.
- An entity may also choose to present one or more alternative versions of EPS. These normally exclude large or unusual items so that EPS is based on 'normal' recurring earnings.
- EPS measures an entity's performance from the viewpoint of investors. It shows the amount of earnings available to each ordinary shareholder. This means that EPS takes the effect of preference dividends (if any) into account. It also takes share issues into account.
- Diluted EPS can provide an 'early warning' of any changes to an investor's potential return on their investment due to future share issues.

6.2 Limitations of earnings per share

EPS is probably the single most important indicator of an entity's performance. It is a very useful measure when it is used as the starting point for a more detailed analysis of an entity's performance.

However, EPS can have serious limitations:

- Not all entities use the same accounting policies. It may not always be possible to make meaningful comparisons between the EPS of different entities.
- EPS does not take account of inflation, so that growth in EPS over time might be misleading.
- EPS measures an entity's profitability, but this is only part of an entity's overall performance. An entity's cash flow can be just as important as its profit (and

more essential to its immediate survival). Changes in the value of assets (holding gains) can also be an important part of performance for some entities.

- Diluted EPS is often described as an 'early warning' to investors that the return on their investment may fall sometime in the future. However, diluted EPS is based on current earnings, not forecast earnings. This means that it may not be a reliable predictor of future EPS.

One of the main problems with EPS can be the way that it is used by investors and others. Users often rely on EPS as the main or only measure of an entity's performance. Management know this and try to make EPS appear as high as possible. They may attempt to manipulate the figure by using 'creative accounting'. They may also make decisions which increase EPS in the short term but which damage the entity in the longer term.

Statements of cash flows

Contents

- 1 Purpose of statements of cash flows. Cash and cash equivalents
- 2 Overview of statements of cash flows
- 3 Preparing a statement of cash flows: cash flows from operating activities – indirect method
- 4 Indirect method: adjustments for working capital
- 5 Preparing a statement of cash flows: cash flows from operating activities – direct method
- 6 Preparing a statement of cash flows: cash flows from investing activities
- 7 Preparing a statement of cash flows: cash flows from financing activities
- 8 The uses of cash flow information

Purpose of statements of cash flows. Cash and cash equivalents

- Purpose of statements of cash flows
- Reporting changes in cash and cash equivalents
- Definitions of cash and cash equivalents
- Note to the statement of cash flows on cash and cash equivalents
- Bank overdrafts

1 Purpose of statements of cash flows. Cash and cash equivalents

1.1 Purpose of statements of cash flows

IAS1 states that a statement of cash flows is a part of a complete set of the financial statements of an entity. It provides information about:

- the cash flows of the entity during the reporting period, and
- the changes in cash and cash equivalents during the period.

IAS7 **Statements of cash flows** sets out the benefits of cash flow information to users of financial statements.

- A statement of cash flows provides information that helps users to evaluate changes in the net assets of an entity and in its financial structure (including its liquidity and solvency).
- It provides information that helps users to assess the ability of the entity to affect the amount and timing of its cash flows in order to adapt to changing circumstances and unexpected opportunities.
- It is useful in assessing the ability of the entity to generate cash and cash equivalents.
- It helps users of accounts to compare the performance of different entities because unlike profits, comparisons of cash flows are not affected by the different accounting policies used by different entities.
- Historical cash flows are often a fairly reliable indicator of the amount, timing and certainty of **future** cash flows.

1.2 Reporting changes in cash and cash equivalents

A statement of cash flows reports the change in the amount of cash and cash equivalents held by the entity during the financial period.

This information is summarised at the end of the statement of cash flows, which shows the change in cash and cash equivalents during the period, the amount and the beginning of the period and the amount the end of the period.

At the end of a statement of cash flows, the increase or decrease in cash and cash equivalents during the period is shown as follows. (Figures are included, for the purpose of illustration).

	\$000
Increase in cash and cash equivalents during the period	54
Cash and cash equivalents at the beginning of the period	<u>208</u>
Cash and cash equivalents at the end of the period	<u>262</u>

1.3 Definitions of cash and cash equivalents

IAS7 defines cash and cash equivalents.

- Cash consists of cash (or other financial instruments) that can be withdrawn **on demand**.
- Cash equivalents are short-term, highly-liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.

Examples of cash equivalents are:

- a bank deposit where some notice of withdrawal is required
- short-term investments with a maturity of three months or less, such as government bills (such as Treasury bills in the UK) and short-term Certificates of Deposit. IAS7 states that to be treated as a cash equivalent in the statement of cash flows, rather than as an investment, short-term investments should have a maturity (repayment date or redemption date) of, 'say, three months or less from the date of acquisition'.

Cash and cash equivalents are held in order to meet short-term cash commitments, rather than for investment purposes or other purposes.

1.4 Note to the statement of cash flows on cash and cash equivalents

The following disclosures about cash and cash equivalents are also required, as a supplementary note to the cash flow statement.

- a note showing the components of cash and cash equivalents
- a reconciliation showing the amounts in the cash flow statement with the amounts in the balance sheet.

This note to the cash flow statement might therefore be shown as follows.

	Current year	Previous year
	\$000	\$000
Cash on hand and balances with banks	193	172
Short-term investments	<u>69</u>	<u>36</u>
Cash and cash equivalents	<u>262</u>	<u>208</u>

1.5 Bank overdrafts

Bank overdrafts that are **repayable on demand** form an integral part of an entity's cash management arrangements. An overdraft balance of this type would therefore count as 'negative' cash.

In contrast, when a bank overdraft is a part of a committed revolving borrowing facility, and is **not repayable on demand**, changes in the overdraft balance during a period would probably be treated as a financing activity, not a change in cash and cash equivalents.

Cash flows from financing activities are described later. However, when changes in the bank overdraft are reported as a financing activity:

- an increase in the bank overdraft is a source of finance
- a decrease in the bank overdraft is a repayment of a borrowing.



Example

A company had a bank overdraft of \$20,000 at the beginning of the financial year and a bank overdraft of \$70,000 at the end of the year.

Depending on whether or not the bank overdraft is repayable on demand, the increase in the bank overdraft might be reported in the statement of cash flows as either:

- a change in cash and cash equivalents, representing a fall in cash and cash equivalents of \$50,000, or
- a source of finance of \$50,000, with no change in the cash and cash equivalents as a consequence of the increase in the overdraft.

Overview of statements of cash flows

- The sections of a statement of cash flows
- Examples of a statement of cash flows

2 Overview of statements of cash flows

2.1 The sections of a statement of cash flows

The content and format of statements of cash flows are specified by IAS7 **Statements of cash flows**. IAS7 does not specify what the **exact** format of a statement of cash flows should be, but it provides suggested layouts in an appendix.

Entities are required by IAS7 to report cash flows for the period under three headings:

- cash flows from operating activities
- cash flows from investing activities
- cash flows from financing activities.

All cash flows (except for changes from cash to cash equivalents or from cash equivalents to cash) can be included in one of these three categories.

Together, the cash flows arising from these three categories of activity explain the increase or decrease in cash and cash equivalents during the financial period.

The cash flows for each category might be positive or negative. The total of the cash flows for all three categories together explains the overall increase or decrease in cash and cash equivalents during the period.

Cash flows from operating activities

Operating activities are the normal trading activities of the entity. Cash flows from operating activities are the cash inflows or cash outflows arising in normal trading activities.

Operating activities normally provide an operating profit before tax. However, profit is not the same as cash flow, and the cash flows from operating activities are different from profit.

A statement of cash flows normally makes a distinction between:

- **cash generated from operations**, which is the cash from sales less the cash payments for operating costs, and
- **net cash from operating activities**, which is the cash generated from operations, less interest payments and tax paid on profits.

Cash flows from operating activities exclude cash from the disposal of non-current assets, such as the sale of land and buildings or machinery.

Cash flows from investing activities

The second section of a statement of cash flows shows cash flows from investing activities. Investing activities are defined by IAS7 as 'the acquisition and disposal of long-term assets and other investments not included in cash equivalents'. They include both:

- investing in new non-current assets, for example by purchasing new items of property, plant and equipment
- disinvesting, by disposing of items of property, plant and equipment.

Cash flows from investing activities might also include cash received from investments, such as interest or dividends received.

Cash flow from financing activities

The third section of the statement of cash flows shows the cash flows from financing activities. These activities are defined by IAS7 as 'activities that resulting changes in the size and composition of the contributed equity and borrowings of the entity.' They include cash flows from:

- the issue or buy-back of shares for cash
- the issue of bonds or the redemption of bonds (for cash)
- new loans and the repayment of loan principal
- normally, the payment of dividends to equity shareholders.

2.2 Examples of a statement of cash flows

This chapter explains how a statement of cash flows should be prepared for a single company. It might be useful to look at some examples of a complete statement of cash flows (for a single company) before looking in closer detail at how they are prepared.

IAS7 permits two methods of presenting the cash flows from operating activities:

- the direct method, and
- the indirect method.

The two methods differ only in the way that they present the cash flows for cash generated from operations. In all other respects, the figures in the statement of cash flows using the direct method are **identical** to the figures in a statement using the indirect method – cash flows from investing activities and financing activities are presented in exactly the same way.



Example: the direct method

The example here uses the 'direct method' of presenting the cash flows from operating activities.

Entity AZ

Cash flow statement for the year ended 31 December Year 9

	\$000	\$000
Cash flows from operating activities		
Cash receipts from customers	5,700	
Cash payments to suppliers and employees	(4,350)	
Cash generated from operations	1,350	
Interest paid	(200)	
Taxation paid	(400)	
Net cash from operating activities		750
Cash flows from investing activities		
Purchase of property, plant and equipment	(640)	
Proceeds from the sale of equipment	70	
Interest received	40	
Dividends received	20	
Net cash used in investing activities		(510)
Cash flows from financing activities		
Proceeds from the issue of share capital	800	
Proceeds from long-term loan	200	
Redemption of debt securities	(620)	
Payment of finance lease liability	(30)	
Dividends paid	(450)	
Net cash inflow from financing activities		(100)
Net increase in cash and cash equivalents		140
Cash and cash equivalents at the beginning of the period		35
Cash and cash equivalents at the end of the period		175



Example: the indirect method

The example below shows how the same entity might use the 'indirect method' of presenting the cash flows from operating activities.

Entity AZ

Cash flow statement for the year ended 31 December Year 9

	\$000	\$000
Cash flows from operating activities		
Profit before taxation	585	

Adjustments for:		
Depreciation and amortisation	400	
Investment income	(60)	
Interest expense	190	
Loss on disposal of non-current asset	<u>250</u>	
	1,365	
Increase in trade and other receivables	(45)	
Decrease in inventories	16	
Increase in trade payables	<u>14</u>	
Cash generated from operations	1,350	
Interest paid	(200)	
Taxation paid	<u>(400)</u>	
Net cash from operating activities		750
Cash flows from investing activities		
Purchase of property, plant and equipment	(640)	
Proceeds from the sale of equipment	70	
Interest received	40	
Dividends received	<u>20</u>	
Net cash used in investing activities		(510)
Cash flows from financing activities		
Proceeds from the issue of share capital	800	
Proceeds from long-term loan	200	
Redemption of debt securities	(620)	
Payment of finance lease liability	(30)	
Dividends paid	<u>(450)</u>	
Net cash inflow from financing activities		(100)
Net increase in cash and cash equivalents		140
Cash and cash equivalents at the beginning of the period		<u>35</u>
Cash and cash equivalents at the end of the period		<u>175</u>

If you compare the two statements of cash flows, you will see that the figures in the two statements are identical from 'Cash generated from operations' down to the end. The only differences are in the presentation of the cash flows that produced the 'Cash generated from operations'.

IAS7 allows entities to use either method of presentation.

Preparing a statement of cash flows: cash flows from operating activities – indirect method

- Profit before taxation
- Adjustment for depreciation and amortisation
- Adjustment for interest charges in the income statement
- Adjustment for gains or losses on disposal of non-current assets
- Working capital adjustments: introduction
- Interest, taxation and dividends
- Interest paid and tax paid

3 Preparing a statement of cash flows: cash flows from operating activities – indirect method

With the indirect method of presenting statements of cash flows, adjustments are made to the figure for profit before tax for the period in order to arrive at a figure for net cash flow from operating activities.

3.1 Profit before taxation

The starting point for the statement of cash flows for a company is the operating profit after deducting interest but before taxation (i.e. profit after tax).

Adjustments are then made to this profit figure in order to calculate the amount of cash received by the entity (or the amount of cash paid out) as a consequence of its trading operations.

All the adjustments are for items that have affected profit but that do not represent cash flows. The purpose of the adjustments is to work toward a figure for cash flow from operating activities.

3.2 Adjustment for depreciation, amortisation and impairment

Depreciation charges and amortisation charges are not cash flows. They are expenses that have reduced profit, but they do not represent payments of cash.

In order to obtain a figure for cash flow from the figure for profit, the charges for depreciation and amortisation must therefore be added back to the profit figure.

In the same way, any impairment of non-current assets charged as an expense in profit or loss is not a cash flow, and should be added back to the profit before tax figure to arrive at a figure for cash generated from operations.

Calculating the depreciation charge

You might be required in an examination question to calculate the depreciation charge for the year, for inclusion in the statement of cash flows. A method of calculating the depreciation charge is:

	\$	\$
Accumulated depreciation at end of year		A
Accumulated depreciation at beginning of year	B	
Accumulated depreciation on disposals during the year	<u>(C)</u>	
Depreciation charge for the year		<u><u>(B - C) = D</u></u> <u>A - D</u>

Alternatively, the figure can be calculated by reconstructing the ledger account:

Accumulated depreciation			
	\$		\$
Disposals	C	Balance b/d	B
Balance c/d	<u>A</u>	Depreciation charge for the year (balancing figure)	<u>X</u>
	<u>X</u>		<u>X</u>

3.3 Adjustment for interest charges in profit or loss

Because the accruals concept is applied in accounting, the amount of interest charges in profit or loss for the year might differ from the amount of interest actually paid in the year. Interest charges are accrued for the purpose of measuring profit, and there could be accrued interest charges in the statement of financial position.

Since interest charges (in profit or loss) and interest payments (cash flow) might differ, it is necessary in the statement of cash flows to:

- add back the interest charge for the year, and
- deduct the interest actually paid (= the cash payments of interest).

The indirect method of presenting a statement of cash flows therefore includes an adjustment for interest charges. The interest charge against profit for the year is added back as an adjustment. The actual amount of interest paid is deducted later in the statement.

3.4 Adjustment for gains or losses on disposal of non-current assets

Gains or losses on the disposal of non-current assets are not cash flows. The gain or loss is calculated as the difference between:

- the net cash received from the disposal, and
- the carrying value (net book value) of the asset at the date of disposal.

The relevant cash flow is the net cash received from the sale. In the statement of cash flows, this is treated as a cash flow from investing activities, not a cash flow from operating activities.

To prepare a statement of cash flows using the indirect method, the gain or loss on disposal is shown as an adjustment in the calculation of operating cash flows.

Adjustments from profit to cash flow from operating activities

- Deduct any gains on the disposal of non-current assets, or
- Add any losses on the disposal of non-current assets.

These adjustments remove the effect of the gain or loss on disposal (a non-cash item) from the operating profit.

In the section on cash flows from investing activities

Include the net cash flows received from the disposal of non-current assets as cash inflows. These are reported as cash flows from investing activities, not cash flows generated from operations.



Example

A company disposed of an item of equipment for \$80,000. The equipment had originally cost \$150,000 and the accumulated depreciation charged up to the date of disposal was \$100,000. The costs of disposal were \$5,000.

	\$
Cost	150,000
Accumulated depreciation	100,000
	50,000
Carrying value at date of disposal	50,000
Cash proceeds from sale, minus disposal costs	75,000
Gain on disposal	25,000

In the statement of cash flows, the gain on disposal of \$25,000 should be deducted as an adjustment to the operating profit. It is not the cash flow from the disposal of the asset. The net cash proceeds of \$75,000 should be included as a cash inflow under the heading: 'Cash flows from investing activities'.

3.5 Working capital adjustments: introduction

In the indirect method of presenting a statement of cash flows, the section on cash flows from operating activities includes adjustments for:

- inventories
- trade receivables and prepayments
- trade payables and accruals.

These adjustments are explained in the next section of this chapter.

3.6 Interest, taxation and dividends

The previous examples of the indirect and the direct methods of presenting statements of cash flows both include interest paid and tax paid as operating cash flows. The two methods of presentation are identical after the figure for cash generated from operations.

However, IAS7 allows some variations in the way that cash flows for interest and dividends are presented in a statement of cash flows, although the following should be shown separately:

- interest received
- dividends received
- interest paid
- dividends paid.

Interest payments

IAS7 states that there is no consensus about how to treat interest payments by an entity, other than a financial institution such as a bank. Interest payments may be classified as either:

- an operating cash flow, because they are deducted when calculating operating profit before taxation, or
- a financing cash flow, because they are costs of obtaining finance.

In examples of statements of cash flows in the appendix to IAS7, interest paid is shown as a separate line item within cash flows from operating activities. This approach is therefore used here.

Interest and dividends received

Interest received and dividends received may be classified as either:

- an operating cash flow, because they are added when calculating operating profit before taxation, or
- an investing cash flow, because they represent returns on investment.

In examples of statements of cash flows in the appendix to IAS7, interest received and dividend received are shown as separate items within cash flows from investing activities. This approach is therefore used here.

Dividends paid

IAS7 allows dividend payments to be treated as either:

- a financing cash flow because they are a cost of obtaining financial resources, or
- a component of the cash flows from operating activities, in order to assist users to determine the ability of the entity to pay dividends out of its operating cash flows.

In examples of statements of cash flows in the appendix to IAS7, dividends paid are shown as a line item within cash flows from financing activities. This approach is therefore used here.

Taxes on profits

Cash flows arising from taxation on income should normally be classified as a cash flow from operating activities (unless the tax payments or refunds can be specifically associated with an investing or financing activity).

The examples of statements of cash flows in this chapter therefore show both interest paid and tax paid as cash flow items, to get from the figure for cash generated from operations to the figure for 'net cash from operating activities'.

3.7 Interest paid and tax paid

The final items in the operating cash flows part of a statement of cash flows are the amount of interest paid and the amount of tax paid in the period.

As explained earlier, the amount of interest paid might not be the amount of interest expense charged against profit. Similarly, the cash payments for tax might not be the same as the tax charge for the year.

The amount of the payments of interest and tax can be calculated from figures in the opening and closing statements of financial position for the period, and the statement of comprehensive income for the period.

Payments of taxation

The method of calculating the amount of tax paid is as follows:

	\$
Liability for tax in the statement of financial position, beginning of the year	A
Taxation charge for the year	B
	<u> </u>
	(A + B)
Liability for tax in the statement of financial position, end of the year	C
	<u> </u>
Taxation paid in the year	<u>(A + B - C)</u>

Alternatively, the figure can be calculated by reconstructing a ledger account:

Taxation liability			
	\$		\$
Cash paid (balancing figure)	X	Balance b/d	A
Balance c/d	C	Tax charge for the year	B
	X		X

However, the **taxation liability should include the deferred tax liability as well as the current tax liability**, and the tax charge for the year is the total amount of tax charged against profit (current tax, deferred tax and adjustment for under- or over-provision of tax in the previous year).

Interest payments

The amount of interest paid in the year can be calculated in the same way, from the opening and closing liabilities for interest (accrued interest) and the figure for interest charges for the year.

	\$
Liability for interest in the statement of financial position, beginning of the year	A
Interest charge for the year	B
	(A + B)
Liability for interest in the statement of financial position, end of the year	C
Interest paid in the year	(A + B – C)



Example

A company had liabilities in its statements of financial position at the beginning and at the end of Year 1, as follows:

	Liability for interest charges	Liability for taxation
Beginning of Year 1	\$17,000	\$102,000
End of Year 1	\$19,000	\$131,000

During the year, interest charges in the income statement were \$66,000 and taxation on profits were \$277,000. The amounts of interest payments and tax payments (cash flows) for inclusion in the statement of cash flows can be calculated as follows:

	Tax	Interest
	\$	\$
Liability at the beginning of the year	102,000	17,000
Taxation charge/interest charge for the year	<u>277,000</u>	<u>66,000</u>
	379,000	83,000
Liability at the end of the year	<u>(131,000)</u>	<u>(19,000)</u>
Tax paid/interest paid during the year	<u>248,000</u>	<u>64,000</u>

Indirect method: adjustments for working capital

- Working capital defined
- Changes in working capital and the effect on cash flow
- Changes in trade and other receivables
- Changes in inventory
- Changes in trade payables
- Summary of the rules for working capital changes

4 Indirect method: adjustments for working capital

With the indirect method of presenting a statement of cash flows, adjustments should be made for changes in working capital during the year, to arrive at the figure for cash generated from operations.

4.1 Working capital defined

For the purpose of preparing a statement of cash flows, working capital is defined as:

	\$
Inventory	A
Plus: Trade and other receivables	B
Minus: Trade payables	(C)
Working capital	A + B – C

Trade and other receivables include any prepayments.

Trade payables include accrued expenses and other payables, provided that the accrued expenses and other payables do not relate to other items dealt with separately in the statement of cash flows, in particular:

- accrued interest charges
- taxation payable.

Interest charges and payments for interest are presented separately in the statement of cash flows, and so accrued interest charges should be excluded from the calculation of changes in trade payables and accruals. Similarly, taxation payable is dealt with separately; therefore taxation payable is excluded from the calculation of working capital changes.

Accrued interest and accrued tax payable must therefore be deducted for the total amount for accruals, and the net accruals (after making these deductions) should be included with trade payables.

4.2 Changes in working capital and the effect on cash flow

When working capital increases, the cash flows from operations are less than the operating profit, by the amount of the increase.

Similarly, when working capital is reduced, the cash flows from operations are less than the operating profit, by the amount of the reduction.

This important point will be explained with several simple examples.

4.3 Changes in trade and other receivables

Sales revenue in a period differs from the amount of cash received from sales by the amount of the increase or decrease in receivables during the period.



Example: trade and other receivables

A company had receivables at the beginning of the year of \$6,000 and at the end of the year receivables were \$9,000. During the year, sales were \$50,000 in total. Purchases were \$30,000, all paid in cash. The company holds no inventories. The operating profit for the year was \$20,000 (\$50,000 – \$30,000).

The cash flow from operations is calculated as follows:

	\$
Receivables at the beginning of the year	6,000
Sales in the year	<u>50,000</u>
	56,000
Receivables at end of the year	<u>(9,000)</u>
Cash received	47,000
Cash paid (purchases)	<u>30,000</u>
Cash flow from operations	<u>17,000</u>

The cash flow is \$3,000 less than the operating profit, because receivables increased during the year by \$3,000.

The rule: adjusting from operating profit to operating cash flows to allow for receivables

- When trade and other receivables go up during the year, cash flows from operations are less than operating profit by the amount of the increase.
- When trade and other receivables go down during the year, cash flows from operations are more than operating profit by the amount of the reduction.

In a statement of cash flows presented using the indirect method, the adjustment for receivables is therefore to:

- subtract the increase in receivables during the period (= the amount by which closing receivables exceed opening receivables), or
- add the reduction in receivables during the period (= the amount by which opening receivables exceed closing receivables).

Prepayments in the opening and closing balance sheet should be included in the total amount of receivables.

4.4 Changes in inventory

Purchases in a period differ from the cost of sales by the amount of the increase or decrease in inventories during the period. If all purchases were paid for in cash, this means that cash payments and the cost of sales (and profit) would differ by the amount of the increase or decrease in inventories.



Example: inventory

A company had inventory at the beginning of the year of \$5,000 and at the end of the year the inventory was valued at \$3,000. During the year, sales were \$50,000 and there were no receivables at the beginning or end of the year. Purchases were \$28,000, all paid in cash. The operating profit for the year was \$20,000, calculated as follows:

	\$
Opening inventory	5,000
Purchases in the year (all paid in cash)	<u>28,000</u>
	33,000
Closing inventory	<u>(3,000)</u>
Cost of sales	30,000
Sales	<u>50,000</u>
Operating profit	<u>20,000</u>

The cash flow from operations is calculated as follows:

	\$
Cash from sales in the year	50,000
Purchases paid in cash	<u>28,000</u>
Cash flow from operations	<u>22,000</u>

The cash flow is \$2,000 more than the operating profit, because inventory was reduced during the year by \$2,000.

The rule: adjusting from operating profit to operating cash flows to allow for changes in inventory

- When the value of inventory goes up between the beginning and end of the year, cash flows from operations are less than operating profit by the amount of the increase.
- When the value of inventory goes down between the beginning and end of the year, cash flows from operations are more than operating profit by the amount of the reduction.

In a statement of cash flows presented using the indirect method, the adjustment for inventories is therefore to:

- subtract the increase in inventories during the period (= the amount by which closing inventory exceeds opening inventory), or
- add the reduction in inventories during the period (= the amount by which opening inventory exceeds closing inventory).

4.5 Changes in trade payables

Payments for purchases in a period differ from purchases by the amount of increase or decrease in trade payables during the period.



Example: trade payables

A company had no inventory and no receivables at the beginning and end of the year. All its sales are for cash, and sales in the year were \$50,000. Its purchases are all on credit. During the year, its purchases were \$30,000. Trade payables at the beginning of the year were \$4,000 and trade payables at the end of the year were \$6,500.

The operating profit for the year was \$20,000 (\$50,000 – \$30,000)

	\$
Trade payables at the beginning of the year	4,000
Purchases in the year	30,000
	<u>34,000</u>
Trade payables at the end of the year	<u>(6,500)</u>
Cash paid to suppliers	27,500
Cash from sales	50,000
Cash flow from operations	<u>22,500</u>

The cash flow is \$2,500 more than the operating profit, because trade payables were reduced during the year by \$2,500.

The rule: adjusting from operating profit to operating cash flows to allow for changes in trade payables

- When trade payables go up between the beginning and end of the year, cash flows from operations are more than operating profit by the amount of the increase.
- When trade payables go down between the beginning and end of the year, cash flows from operations are less than operating profit by the amount of the reduction.

In a statement of cash flows presented using the indirect method, the adjustment for trade payables is therefore:

- add the increase in trade payables during the period (= the amount by which closing trade payables exceed opening trade payables), or
- subtract the reduction in trade payables during the period (= the amount by which opening trade payables exceed closing trade payables).

Accruals in the opening and closing statements of financial position should be included in the total amount of trade payables. However, deduct interest payable and tax payable from opening and closing payables, if the total for payables includes these items.

4.6 Summary of the rules for working capital changes

The rules for working capital adjustments in a statement of cash flows (indirect method) may be summarised as follows.

Statement of cash flows:

Adjustments to get from profit before tax to cash flow from operations

Increase in trade and other receivables		Subtract
Increase in inventory		Subtract
Increase in trade payables	Add	
Decrease in trade and other receivables	Add	
Decrease in inventory	Add	
Decrease in trade payables		Subtract

This applies to the indirect method of presenting a statement of cash flows, not to the direct method.



Example

A company made an operating profit before tax of \$163,000 in the year just ended. Depreciation and amortisation charges were \$47,000. There was a gain of \$18,000 on disposals of non-current assets and there were no interest charges. Values of working capital items at the beginning and end of the year were:

	Receivables	Inventory	Trade payables
Beginning of the year	\$32,000	\$43,000	\$24,000
End of the year	\$26,000	\$65,000	\$36,500

Taxation paid was \$44,000. There were no interest charges and no interest payments.

Required

Calculate the amount of cash generated from operations and the net cash flow from operating activities, as they would be shown in a statement of cash flows using the indirect method.

a

Answer

	\$	\$
Cash flows from operating activities		
Profit before taxation	163,000	
Adjustments for:		
Depreciation and amortisation charges	47,000	
Gains on disposal of non-current assets	(18,000)	
	<u>192,000</u>	
Decrease in trade and other receivables	6,000	
Increase in inventories	(22,000)	
Increase in trade payables	<u>12,500</u>	
Cash generated from operations	188,500	
Taxation paid (tax on profits)	<u>(44,000)</u>	
Net cash flow from operating activities		144,500

Preparing a statement of cash flows: cash flows from operating activities – direct method

- Cash from sales
- Cash payments for wages and salaries
- Cash payments for materials
- Cash paid for other expenses
- Which method to use: direct or indirect method?

5 Preparing a statement of cash flows: cash flows from operating activities – direct method

The format for the direct method of presenting a statement of cash flows is as follows. (Figures are included, for the purpose of illustration.)

Statement of cash flows: direct method	\$
Cash flows from operating activities	
Cash receipts from customers	348,800
Cash payments to suppliers	(70,000)
Cash payments to employees	(150,000)
Cash paid for other operating expenses	(30,000)
Cash generated from operations	<u>98,800</u>

The task is therefore to establish the amounts for cash receipts and cash payments. In an examination, you might be expected to calculate any of these cash flows from figures in the opening and closing statements of financial position, and the statement of comprehensive income or the income statement.

5.1 Cash from sales

The cash receipts from sales during a financial period can be calculated as follows:

	Source of information	\$
Trade receivables at the beginning of the year	Statement of financial position	A
Sales in the year	Statement of comprehensive income/income statement	B
		<u>A + B</u>
Trade receivables at the end of the year	Statement of financial position	(C)
Equals: Cash from sales during the year		<u>(A + B – C)</u>

5.2 Cash paid for wages and salaries

Cash payments for wages and salaries can be calculated in a similar way.

	Source of information	\$
Accrued wages and salaries at the beginning of the year	Statement of financial position	A
Wages and salaries expenses in the year	Statement of comprehensive income/income statement	B
		<u>A + B</u>
Accrued wages and salaries at the end of the year	Statement of financial position	(C)
Equals: Cash paid for wages and salaries		<u>(A + B - C)</u>

5.3 Cash paid for materials supplies

To calculate the amount of cash paid to suppliers, you might need to calculate first the amount of material purchases during the period.

	Source of information	\$
Closing inventory at the end of the year	Statement of financial position	A
Cost of sales	Statement of comprehensive income/income statement	B
		<u>A + B</u>
Opening inventory at the beginning of the year	Statement of financial position	(C)
Equals: Purchases in the year		<u>(A + B - C)</u>

Having calculated purchases from the cost of sales, the amount of cash payments for purchases may be calculated from purchases and opening and closing trade payables.

	Source of information	\$
Trade payables at the beginning of the year	Statement of financial position	D
Purchases in the year (as above)	Statement of comprehensive income/income statement	<u>E = (A + B - C)</u>
		D + E
Trade payables at the end of the year	Statement of financial position	(F)
Equals: Cash paid for materials		<u>(D + E - F)</u>

5.4 Cash paid for other expenses

Other expenses included in the statement of comprehensive income usually include depreciation charges, which are not cash flows. Depreciation charges should therefore be excluded from other expenses when calculating cash payments.

Cash payments for other expenses can be calculated as follows.

	Source of information	\$
Payables for other expenses at the beginning of the year	Statement of financial position	A
Other expenses in the year, excluding depreciation and amortisation	Statement of comprehensive income/ income statement	B
		<u>A + B</u>
Payables for other expenses at the end of the year	Statement of financial position	(C)
Equals: Cash paid for other expenses		<u>(A + B – C)</u>

Payables for other expenses should exclude accrued wages and salaries, accrued interest charges and taxation payable.



Example

The following information has been extracted from the financial statements of Hopper Company for the year ended 31 December Year 7.

	\$
Sales	1,280,000
Cost of sales	<u>(400,000)</u>
Gross profit	880,000
Wages and salaries	(290,000)
Other expenses (including depreciation \$25,000)	<u>(350,000)</u>
	240,000
Interest charges	<u>(50,000)</u>
Profit before tax	190,000
Tax on profit	<u>(40,000)</u>
Profit after tax	<u>150,000</u>

Extracts from the statements of financial position

	At 1 January Year 7	At 31 December Year 7
	\$	\$
Trade receivables	233,000	219,000
Inventory	118,000	124,000
Trade payables	102,000	125,000
Accrued wages and salaries	8,000	5,000
Accrued interest charges	30,000	45,000
Tax payable	52,000	43,000

Required

Present the cash flows from operating activities as they would be presented in a statement of cash flows using

- the direct method.
- the indirect method.

a**Answer****Workings: direct method**

Cash from sales	\$
Trade receivables at 1 January Year 7	233,000
Sales in the year	1,280,000
	1,513,000
Trade receivables at 31 December Year 7	(219,000)
Cash from sales during the year	1,294,000
Cash paid for wages and salaries	\$
Accrued wages and salaries at 1 January Year 7	8,000
Wages and salaries expenses in the year	290,000
	298,000
Accrued wages and salaries at 31 December Year 7	(5,000)
Cash paid for wages and salaries	293,000
Purchases	\$
Closing inventory at 31 December Year 7	124,000
Cost of sales	400,000
	524,000
Opening inventory at 1 January Year 7	(118,000)
Purchases in the year	406,000
Cash paid for materials supplies	\$
Trade payables at 1 January Year 7	102,000
Purchases in the year (as above)	406,000
	508,000
Trade payables at 31 December Year 7	(125,000)
Cash paid for materials	383,000

Cash paid for other expenses is the amount for expenses after deducting the depreciation charge: $\$350,000 - \$25,000 = \$325,000$.

Interest and tax payments	Tax	Interest
	\$	\$
Liability at the beginning of the year	52,000	30,000
Taxation charge/interest charge for the year	40,000	50,000
	92,000	80,000
Liability at the end of the year	(43,000)	(45,000)
Tax paid/interest paid during the year	49,000	35,000

Statement of cash flows: direct method	\$
Cash flows from operating activities	
Cash receipts from customers	1,294,000
Cash payments to suppliers	(383,000)
Cash payments to employees	(293,000)
Cash paid for other operating expenses	(325,000)
Cash generated from operations	293,000
Taxation paid (tax on profits)	(49,000)
Interest charges paid	(35,000)
Net cash flow from operating activities	209,000

Statement of cash flows: indirect method	\$
Cash flows from operating activities	
Profit before taxation	190,000
Adjustments for:	
Depreciation and amortisation charges	25,000
Interest charges for the year	50,000
	265,000
Decrease in receivables (233,000 – 219,000)	14,000
Increase in inventories (124,000 – 118,000)	(6,000)
Increase in trade payables (125,000 + 5,000) – (102,000 + 8,000)	20,000
Cash generated from operations	293,000
Taxation paid	(49,000)
Interest paid	(35,000)
Net cash flow from operating activities	209,000

5.5 Which method to use: direct or indirect method?

IAS7 encourages the use of the direct method, but the indirect method is also permitted.

- The **main advantage of the direct method** is that it shows the actual operating cash flows for each major item of operating cash flow. This information can assist users of the financial statements to assess future cash flows.

- The **main advantage of the indirect method** is that it shows the differences between operating profit and cash flows from operating activities. This can assist the users of financial statements to assess the quality of the reporting entity's profits and operating cash flows. For example, a large reduction in inventories or a large increase in trade payables might be the main reason for positive net operating cash flows.

In practice, most entities use the **indirect method** and this is the method that is usually required in examination questions.

Preparing a statement of cash flows: cash flows from investing activities

- Investing activities
- Cash from the disposal of non-current assets
- Cash paid to acquire non-current assets
- Purchases of property, plant and equipment: non-cash transactions

6 Preparing a cash flow statement: cash flows from investing activities

6.1 Investing activities

All major classes of gross cash receipts and gross cash payments relating to investing activities should be disclosed separately. Investing activities include:

- cash payments to make investments
- cash receipts from investments, such as cash from the disposal of non-current assets
- interest received on investments
- dividends received from investments.

Examples of cash flows from investing activities are as follows.

Cash payments	Cash receipts
Cash payments to acquire property, plant and equipment	Cash receipts from the sale of property, plant and equipment.
Cash payments to acquire intangible assets and other long-term assets, including cash paid for capitalised development costs	Cash receipts from the sale of intangible non-current assets.
Cash paid for a long-term investment in another entity	Interest and dividends received from investments.

6.2 Cash from the disposal of non-current assets

An examination question might require you to calculate the cash received during the financial year from the disposal of a non-current asset. The cash received from the disposal of a non-current asset can be calculated from:

- the profit or loss on disposal (in the statement of comprehensive income or income statement)
- the cost of the asset

- the accumulated depreciation or amortisation, and the accumulated impairment on the asset at the date of disposal.

The cash received is calculated as:

- the net book value of the asset (its carrying amount) at the disposal date
- plus the gain on disposal, or
- minus the loss on disposal.



Example

Entity D reported a gain of \$14,000 on the disposal of non-current assets during the year. The assets disposed of had originally cost \$310,000 and at the date of disposal accumulated depreciation on those assets was \$275,000.

The cash received from the disposal of the assets is calculated as follows:

	\$
Assets at cost	310,000
Accumulated depreciation at the time of disposal	<u>275,000</u>
Net book value (carrying amount) at the time of disposal	35,000
Gain on disposal	<u>14,000</u>
Cash received from disposal	<u>49,000</u>

6.3 Cash paid to acquire non-current assets

You might be required by an examination question to calculate the amount of cash paid to acquire non-current assets during a financial period, given data about non-current assets in the opening and closing balance sheets, disposals during the year and possibly also the depreciation charge for the year.

The cash paid to acquire non-current assets can be calculated in either of two ways, as follows:

Method 1

	\$	\$
Non-current assets at cost at end of year		A
Non-current assets at cost at beginning of year	B	
Disposals during the year, at cost	<u>C</u>	
		<u>(B - C)</u>
Non-current assets acquired during the year		<u>A - (B - C)</u>

Method 2

	\$	\$
Non-current assets at net book value at end of the year		W
Non-current assets at net book value at beginning of the year	X	
Disposals during the year, at net book value	<u>Y</u>	
		<u>(X - Y)</u>
Depreciation charge for the year		W - (X - Y) Z
Non-current assets acquired during the year		<u>W - (X - Y) + Z</u>

Or reconstruct the ledger account (for example):

Non-current assets: Cost

	\$			\$
Balance b/d	B		Disposals	C
Additions (balancing figure)	<u>X</u>		Balance c/d	<u>A</u>
	<u>X</u>			<u>X</u>

Unless some non-current assets were acquired in a non-cash transaction, the value of non-current assets acquired during the year equals the amount of cash paid for the acquisitions.

However, some non-current assets may be acquired in non-cash transactions, such as in a finance lease arrangement. The cost of assets acquired in non-cash transactions should be subtracted from the total value of acquisitions, to obtain a figure for the cash actually paid.

**Example**

The non-current assets of Entity E at the beginning and end of Year 6 were as follows:

	Cost	Accumulated depreciation	Net book value
At the beginning of the year	\$000 620	\$000 205	\$000 415
At the end of the year	770	220	550

During the year, a non-current asset that originally cost \$74,000 was disposed of. Its net book value (carrying amount) at the time of disposal was \$18,000.

Required

- (a) Calculate the depreciation charge for the year, for inclusion in the statement of cash flows (indirect method).

- (b) Calculate the cash spent on the purchase of non-current assets, on the assumption that all non-current assets were bought with cash, and none were obtained under finance lease agreements.

a**Answer**

- (a)
- Depreciation charge for the year**

The depreciation charge for the year is calculated as follows.

	\$000	\$000
Accumulated depreciation at end of year		220
Accumulated depreciation at beginning of year	205	
Accumulated depreciation on disposals during the year (74 – 18)	56	
	—	<u>149</u>
Depreciation charge for the year		<u>71</u>

- (b)
- Purchases of non-current assets**

Method 1	\$000	\$000
Non-current assets at cost at end of year		770
Non-current assets at cost at beginning of year	620	
Disposals during the year, at cost	<u>74</u>	
		<u>546</u>
Non-current assets purchased during the year		<u>224</u>

Alternative method of calculation: Method 2	\$000	\$000
Non-current assets at net book value at end of year		550
Non-current assets at net book value at beginning of year	415	
Disposals during the year, at net book value	<u>18</u>	
		<u>397</u>
		153
Depreciation charge for the year		<u>71</u>
Non-current assets acquired during the year		<u>224</u>

When there are revaluations during the year

When there are revaluations of non-current assets during the year, the value of non-current assets purchased should be calculated as follows.

Purchases of property, plant and equipment	\$
Property, plant and equipment:	
At cost or valuation, at the end of the year	A

At cost or valuation, at the beginning of the year	B
	<u>A – B</u>
Add: Cost/re-valued amount of assets disposed of in the year	C
Minus: Any asset revaluation during the year	(D)
Purchases during the year	<u>(A – B) + C – D</u>

Or reconstruct the ledger account:

Non-current assets: Cost/revaluation

	\$		\$
Balance b/d	B	Disposals	C
Revaluation	D		
Additions (balancing figure)	<u>X</u>	Balance c/d	<u>A</u>
	<u>X</u>		<u>X</u>



Example

The statements of financial position of Grand Company at the beginning and end of Year 1 include the following information:

Property, plant and equipment	Beginning of Year 1	End of Year 1
	\$	\$
At cost/revalued amount	1,400,000	1,900,000
Accumulated depreciation	<u>350,000</u>	<u>375,000</u>
Carrying value	<u>1,050,000</u>	<u>1,525,000</u>

During the year, some property was re-valued upwards by \$200,000. An item of equipment was disposed of during the year at a profit of \$25,000. This equipment had an original cost of \$260,000 and accumulated depreciation of \$240,000 at the date of disposal.

Purchases of property, plant and equipment during the year were as follows:

	\$
At cost/revalued amount, at the end of the year	1,900,000
At cost/revalued amount, at the beginning of the year	<u>1,400,000</u>
	500,000
Add: Cost of assets disposed of in the year	260,000
Minus: Asset revaluation during the year	<u>(200,000)</u>
Purchases during the year	<u>560,000</u>

6.4 Purchases of property, plant and equipment: non-cash transactions

IAS7 states that investing and financing transactions that do not require the use of cash must be excluded from the statement of cash flows, but that details of these transactions should be disclosed somewhere in the financial statements, possibly as a note to the financial statements.

An example of a non-cash transaction is the acquisition of non-current assets under a finance lease arrangement. The assets are included in the financial statements at cost, but the lessee has not paid the purchase price.

IAS7 therefore suggests that there should be a disclosure, in a note to the financial statements, of the total amount of property, plant and equipment acquired during the period, and the cash payments that were made to acquire them. These two amounts are different, because some of the non-current assets might have been acquired under finance lease arrangements.



Example

An example of a note to the financial statements is as follows.

'During the period, the company acquired property, plant and equipment with an aggregate cost of \$250,000, of which \$60,000 was acquired by means of finance leases. Cash payments of \$190,000 were made to purchase property, plant and equipment.'

In this example, \$190,000 would appear as a cash outflow in the statement of cash flows in the section for cash flows from investing activities for the period.

- The \$190,000 is the amount of cash actually paid for purchases of property, plant and equipment in the period.
- The cash payments under the terms of the finance leases are not included in this part of the statement of cash flows. The treatment of finance lease payments is explained later.

Preparing a statement of cash flows: cash flows from financing activities

- Examples of cash flows from financing activities
- Shares, bonds and loans: using figures in the statements of financial position
- Dividend payments to equity shareholders
- Repayments on finance leases

7 Preparing a cash flow statement: cash flows from financing activities

The third and final category of cash flows is cash flows from financing activities. All major categories of gross cash receipts and gross cash payments relating to financing activities should be disclosed separately.

7.1 Examples of cash flows from financing activities

Examples of cash flows from financing activities are listed below:

Cash payments	Cash receipts
Cash payments to redeem/buy back shares	Cash proceeds from issuing shares
Cash payments to repay a loan or redeem bonds	Cash proceeds from a loan or issue of bonds
Cash payments to a lessor under a finance lease agreement that represent a reduction in the remaining finance lease obligation (= a reduction in the creditors for finance leases)	

As explained earlier, payments of dividends are also usually included within cash flows from financing activities, in this part of the statement of cash flows. (Some entities may also include interest payments in this section, instead of including them in the section for cash flows from operating activities.)

7.2 Shares, bonds and loans: using figures in the statements of financial position

The cash receipts or cash payments from issuing shares or bonds, redeeming bonds, buying back shares and obtaining and repaying loans can usually be calculated by comparing the opening and closing statements of financial position, and calculating the differences in value.

- The difference in the total of loans outstanding at the beginning and the end of the year should indicate the total amount of new loans in the year or the net amount of loans repaid. You will need to check for **loans repayable** that are shown as **current liabilities** as well as loans that are **non-current liabilities**.

- Similarly, the value of bonds issued or redeemed during the year can be calculated from differences between the opening and closing amounts in the statements of financial position.
- The amount of cash obtained by issuing new shares might be calculated as the difference between the opening and closing values in the statements of financial position for:
 - issued share capital, and
 - share premium.

Cash from new share issues

The cash raised from new share issues can be established by comparing the equity share capital and the share premium in the statements of financial position at the beginning and the end of the year.

	\$
Share capital + Share premium at the end of the year	A
Share capital + Share premium at the beginning of the year	B
= Cash obtained from issuing new shares in the year	(A – B)

Cash from new loans/cash used to repay loans

Cash from new loans or cash paid to redeem loans in the year can be calculated simply by looking at the difference between the liabilities for loans and bonds at the beginning and the end of the year.

- An increase in loans or bonds means there has been an inflow of cash.
- A reduction in loans or bonds means there has been a payment (outflow) of cash.

Remember to add any loans or bonds repayable within one year (current liability) to the loans or bonds repayable after more than one year (non-current liability) to get the total figure for loans or bonds.

	\$
Loans at end of year (current and non-current liabilities)	A
Loans at beginning of year (current and non-current liabilities)	B
If A>B, cash inflow from loans in the year	(A – B)
If B>A, cash outflow to repay loans in the year	_____

Note: The same calculation can be applied to bonds or loan stock that the company might have issued. Bonds and loan stock are long-term debt.



Example

The statements of financial position of Entity B on 1 January and 31 December Year 4 were as follows:

	1 January Year 4	31 December Year 4
	\$	\$
Share capital and reserves		
Ordinary shares of \$1 each	100	140
Share premium	70	180
Retained earnings	<u>420</u>	<u>570</u>
	<u>590</u>	<u>890</u>
Non-current liabilities		
Long-term loans	230	300
Current liabilities		
Loans now repayable within 12 months	20	10

Required

Calculate the financing cash flows for:

- cash receipts from share issues, and
- cash paid to redeem loans and/or cash receipts from new loans.



Answer

New share issues	Share capital	Share premium	Total
	\$	\$	\$
At end of year	140,000	180,000	320,000
At beginning of year	100,000	70,000	<u>170,000</u>
Cash receipts from share issue			<u>150,000</u>

The same approach is used to calculate the net amount of cash received from loans or the net repayment of loan capital in the period. The net cash flow is calculated as the difference between total loans at the beginning and at the end of the year. Loans repayable within 12 months (and so included within current liabilities) must be included in the calculation.

		\$
Loans at end of year	(300,000 + 10,000)	310,000
Loans at beginning of year	(230,000 + 20,000)	<u>250,000</u>
Net increase in loans		<u>60,000</u>

There has been a net increase of \$60,000 in loans outstanding. Since \$20,000 was repayable during the year, this presumably means that \$20,000 in loans were repaid

and new loans of \$80,000 were obtained, giving net cash receipts from loans for the year of \$60,000.

7.3 Dividend payments to equity shareholders

In the statement of cash flows, dividend payments to equity shareholders should be the final dividend payment from the previous year and the interim dividend payment for the current year. The dividend payments during the year are shown in the statement of changes in equity (SOCIE). However, in an examination question you might be expected to calculate dividend payments from figures for retained earnings (accumulated profits) and the profit after tax for the year.

If there have been no transfers to the retained earnings reserve from the revaluation reserve in the year, the equity dividend payments can be calculated as follows:

	\$
Retained earnings reserve at the beginning of the year	A
Profit for the year after tax	B
	A + B
Retained earnings reserve at the end of the year	(C)
Equity dividend payments	(A + B) – C

Alternative working (set out as a ledger account):

Retained earnings reserve			
	\$		\$
Dividends paid (balancing figure) X	X	Balance b/d	A
Balance c/d	C	Profit for period	B
	X		X



Example

The following information has been extracted from the statements of financial position of a company at the beginning and end of Year 1.

	Beginning of Year 1	End of Year 1
	\$	\$
Share capital (ordinary shares)	400,000	500,000
Share premium	275,000	615,000
Retained earnings	390,000	570,000
	1,065,000	1,685,000

The profit for the year after taxation was \$420,000.

Required

Calculate for year 1, for inclusion in the statement of cash flows, the payment of dividend to ordinary shareholders.

a**Answer**

<u>Payment of dividends</u>	\$
Retained earnings at the beginning of the year	390,000
Profit after taxation for the year	<u>420,000</u>
	810,000
Retained earnings at the end of the year	<u>570,000</u>
Dividends paid during the year	<u>240,000</u>

7.4 Repayments on finance leases

When non-current assets are acquired under a finance lease, the lessee makes payments under the lease agreement. For accounting purposes, payments under finance leases are treated:

- partly as interest payments, and
- partly as repayment of the lease finance.

For the purposes of the statement of cash flows:

- The interest element in the lease payments is treated as an interest payment. It is included either as a cash flow from operating activities or a cash flow from financing activities
- The repayment of the lease liability is treated as a repayment of a debt, and is included as a cash flow from financing activities.

If interest payments are treated as a cash flow from financing activities, the full amount of lease payments is included in this part of the statement of cash flows.

The uses of cash flow information

- The statement of cash flows and the income statement
- Interpreting the statement of cash flows

8 The uses of cash flow information

8.1 The statement of cash flows and the income statement

A cash flow statement can provide a different view of the entity's activities from that shown by the income statement (or the section of the statement of comprehensive income that reports the profit or loss for the period). An entity's profit for a period differs from its cash flow for a period because:

- the income statement and statement of financial position are prepared on an accruals basis; and
- cash flows are not affected by an entity's accounting policies or accounting estimates.

There are many reasons why cash flow information is useful.

- Cash flows are a matter of fact and are therefore difficult to manipulate.
- Cash flow information for the current period can often help users to predict the amount, timing and likelihood of cash flows in future periods.
- Cash flow is easier to understand than profit, particularly for users with little knowledge of business or accounting.
- If the statement of cash flows is prepared using the indirect method, it shows the relationship between an entity's profit and its cash generating ability. It reconciles net profit before tax or operating profit to cash generated from operations.
- The statement of cash flows shows all cash inflows and outflows for a period, from all activities.

However, cash flow information has some limitations. One of the main ones is that cash balances are measured at a point in time. Management can:

- deliberately arrange receipts and payments of cash, for example by delaying the payment of suppliers until after the year-end
- arrange transactions so that the cash balance is affected as little as possible, for example, by leasing an asset rather than by purchasing it outright.

Management have a duty to safeguard an entity's cash and to use it properly. The practices above are legitimate ways of doing this, but it is also possible to arrange transactions deliberately so that the entity has a much higher cash balance than usual at a particular time. For example, an asset may be sold and almost immediately repurchased.

There are other limitations:

- The statement of cash flows is based on historical information and therefore does not provide complete information for assessing future cash flows.
- Cash flow is not the same as earnings. Although an entity needs cash to survive in the short term, it must eventually be profitable or cease trading.

Neither the statement of cash flows nor the income statement provides a complete picture of a company's performance. The main financial statements (the statement of financial position, statement of comprehensive income, statement of changes in equity and statement of cash flows) reflect different aspects of the same transactions and should be considered together.

8.2 Interpreting the statement of cash flows

As well as preparing a statement of cash flows, you may be asked to comment on the cash inflows and outflows of the entity and its cash position. The easiest way to do this is to start at the beginning of the statement and work through it.

Cash generated from operations

Compare this figure to profit before tax/operating profit. How different are the two figures? Why are they different? Look at the items in the first part of the statement, particularly the movements in inventories, receivables and payables. If cash generated from operations is about the same as, or higher than operating profit, there is probably no cause for concern.

If cash generated from operations is much lower than profit, this may be a worrying sign. If there are also large increases in inventories, receivables and payables, possible reasons are that:

- The entity is expanding very rapidly and this is absorbing cash generated from operations.
- Working capital management is poor.

Interest paid, taxation paid and dividends paid

Compare these with cash generated from operations. Remember that the entity **has** to meet its liabilities for interest and tax, but it does not have to pay an equity dividend.

Are tax, interest and dividend payments covered by cash generated from operations? The answer should normally be yes.

Investing activities

The main items here are usually the purchase of new non-current assets (an outflow) and the sale of non-current assets (an inflow). Has the entity invested a significant amount of cash during the year? If so, how has the purchase been financed? From existing cash balances, a share issue, long term borrowing or a combination of all three?

Capital investment is usually a good sign; the new assets will generate increased profits and cash flows in future. However, if the entity has financed the purchase mainly or wholly from short-term sources, such as an overdraft, this is normally not a good sign. It means that the entity may become dangerously short of cash to meet its normal day-to-day needs.

Financing activities

Has the entity raised finance during the year? If so, was this by a share issue, or by borrowing, or a combination of the two? The reason for raising finance is often clear; usually it is to finance investment and/or an expansion of the business.

If borrowings have increased, will the entity have enough cash available to meet additional interest payments in future?

Has the entity repaid borrowings during the year? When do the entity's existing borrowings have to be repaid? How easily will the entity be able to make repayments?

Increase/decrease in cash and cash balances

The overall increase or decrease in cash needs to be considered in the context of the statement of cash flows as a whole. A decrease is not necessarily a bad sign. For example, the entity may have had surplus cash in the previous year or may have repaid a loan.

In the same way, an increase in cash or a huge cash balance is not always a good sign, if the cash could have been invested elsewhere to generate profit.

Does the entity have a positive cash balance or a bank overdraft? If an overdraft, how close is it to its overdraft limit?

Does the entity have enough cash to meet both its immediate and its longer-term needs? Consider:

- current liabilities (especially income tax and interest)
- the current level of dividends
- any plans for expansion of the business
- any other spending commitments
- any liability to repay borrowings within the next twelve months.

Consolidated accounts

Contents

- 1 The nature of a group and consolidated accounts
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The nature of a group and consolidated accounts

- A group of companies: parent and subsidiaries
- Statement of financial position of the parent: accounting for a subsidiary
- Purpose and nature of consolidated financial statements
- The effect of the parent/subsidiary relationship on the financial statements
- International accounting standards and consolidated accounts
- The requirement to prepare consolidated accounts
- The requirement to include all subsidiaries
- Common reporting date
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1 The nature of a group and consolidated accounts

1.1 A group of companies: parent and subsidiaries

A group consists of a parent entity and one or more subsidiary entities. (There may also be 'associates' in a group: these are described in a later chapter).

- An entity is a **subsidiary** of another entity if it is **controlled** by that other entity. 'Control' usually means that more than 50% of its equity shares are owned by that other entity.
- Within a group, Company C might be a subsidiary of Company B, which is a subsidiary of Company A. Company C is then a sub-subsidiary of Company A. Group structures with sub-subsidiaries are not examinable.
- The entity that ultimately controls all the entities in the group is called the **parent**.

A parent is defined as 'an entity that has one or more subsidiaries' (IAS27).

Definition of 'control'

Control is assumed to exist when the parent owns directly, or indirectly through other subsidiaries, more than half of the voting power of the entity, unless in exceptional circumstances it can be clearly demonstrated that such control does not exist.

Control also exists when the entity (= parent) owns half or less than half of the voting power of the entity but any of the following circumstances also applies:

- The entity has power over more than half of the voting rights in the subsidiary by virtue of an agreement with other investors.
- The entity has power to govern the financial and operating policies of the subsidiary entity under a statute or agreement.

- The entity has power to appoint or remove a majority of the members of the board of directors of the subsidiary, and the board of directors has control over the entity.
- The entity has power to cast a majority of votes at meetings of the board of directors of the subsidiary, and the board of directors has control over the entity.

1.2 Statement of financial position of the parent: accounting for a subsidiary

A subsidiary is acquired by purchasing a controlling interest in its equity. The parent makes a long-term investment in the subsidiary. In the statement of financial position of the parent, there is a non-current asset:

‘Investment in subsidiary, at cost’

In some groups, the parent company has no assets at all except shares in the subsidiaries in the group. A parent whose main assets (or only assets) are shares in subsidiaries is sometimes called a **holding company**. You might see both terms, ‘parent’ and ‘holding company’: treat them as meaning the same.

1.3 Purpose and nature of consolidated financial statements

When a large part of the assets of the parent consists of investments in subsidiaries, it is difficult for the users of the financial statements of the parent to understand anything about its financial position or financial performance. If a parent company only reported to its shareholders about the financial performance and position of the parent itself, the statement of financial information might contain little more than ‘investments in subsidiaries at cost’ and the profit for the year might consist of little more than ‘dividends received’ from the investments.

To find out meaningful information about their investment, users of the parent’s financial statements need to know about the financial position and performance of the operating subsidiaries in the entire group of companies.

The purpose of consolidated financial statements is to provide financial statements that have meaning and relevance to users. When a parent acquires a subsidiary, both the parent and the subsidiary remain legally separate entities. However, in practice they operate as if they were one organisation. Consolidated financial statements reflect the reality (or substance) of the situation: the group is a **single economic unit**.

In preparing consolidated financial statements:

- the profits of the parent and its subsidiaries, and their other comprehensive income, are combined into a single in a consolidated statement of comprehensive income
- the assets and liabilities of the parent and its subsidiaries are combined in a single consolidated statement of financial position. (However, the share capital and reserves for the consolidated balance sheet are not calculated simply by adding the capital and reserves of all the companies in the group!).

1.4 The effect of the parent/subsidiary relationship on the financial statements

A parent and a subsidiary are **related parties** of each other, because the parent controls the subsidiary.

This relationship often has an effect on the profit or loss, or on the financial position of both entities, because they may enter into transactions with each other on terms that other entities or individuals (unrelated parties) would not.

For example:

- an entity might sell goods to its parent or fellow-subsidiaries on more favourable terms than it would sell to other customers
- a parent company may make supplies to a struggling subsidiary on more favourable terms than it would to other companies. This would boost the apparent profitability of that subsidiary.
- the only or main reason for a subsidiary's existence might be to produce goods or to provide services for the parent to use in its own operations.

In all these situations, the financial performance and financial position reported by the **separate financial statements of the subsidiary** is affected, so that:

- the information could be misleading to users who not aware of the existence and effect of the related party relationship; and
- it may not be possible to make meaningful comparisons between the subsidiary's financial statements and those of a similar entity that (for example) makes all its sales to third parties on normal commercial terms (at 'arm's length').

The **consolidated financial statements** are also affected. Because they present the activities of the group as a single entity, transactions between the subsidiary and the parent are eliminated (not included). Amounts owed by one entity to another are also eliminated.

1.5 International accounting standards and group accounts

There are three relevant IASs and IFRSs relating to the financial statements of groups of companies:

- IAS27: Consolidated and separate financial statements
- IAS28: Investments in associates
- IFRS3: Business combinations. (IFRS 3 was revised in January 2008 and applies to business combinations that occur in financial periods starting on or after 1 July 2009. However, the revised IFRS became examinable from December 2008.)

IFRS3 defines a business combination as 'a transaction ... in which an acquirer obtains control of one or more businesses.' The effect of business combinations is to bring together separate entities or businesses into one reporting entity, which produces consolidated financial statements for the group of entities as a whole.

The examination paper will include a question on preparing consolidated financial statements. The question will involve a parent company, one subsidiary and possibly also an associate.

1.6 The requirement to prepare consolidated accounts

IAS27 states that, with certain exceptions, a parent must present consolidated financial statements in which it consolidates its investments in subsidiaries. In other words, a parent must prepare consolidated financial statements for the group as a whole.

Exception to this rule

There is an exception to this rule. A parent need not present consolidated financial statements if (and only if) **all** the following conditions apply:

- The parent itself (X) is a wholly-owned subsidiary, with its own parent (Y). Alternatively, the parent (X) is a partially-owned subsidiary, with its own parent (Y), and the other owners of X are prepared to allow it to avoid preparing consolidated financial statements.
- The parent's debt or equity instruments are not traded in a public market.
- The parent does not file its financial statements with a securities commission for the purpose of issuing financial instruments in a public market.
- The parent's own parent, or the ultimate parent company (for example, the parent of the parent's parent), **does** produce consolidated financial statements for public use that comply with International Financial Reporting Standards.

1.7 The requirement to include all subsidiaries

Consolidated financial statements should include **all** the subsidiaries of the parent (IAS27).

There are several reasons why a parent may not wish to consolidate a particular subsidiary, for example:

- The subsidiary's activities are dissimilar from those of the parent, so that the consolidated financial statements might not present the group's financial performance and position fairly.
- The subsidiary has been acquired only so that it can be resold within a short time.
- Obtaining the information needed would be expensive and time consuming and might delay the preparation of the consolidated financial statements.
- The subsidiary operates under severe long term restrictions, so that the parent is unable to manage it properly. For example, a subsidiary might be located in a country badly disrupted by a war or a revolution.

None of these is allowed as a reason for excluding a subsidiary from consolidation. However:

- Where a subsidiary is acquired exclusively with a view to subsequent resale, it is accounted for in accordance with IFRS 5 Non-current assets held for sale and discontinued operations.
- If a parent actually loses control over an entity which has been a subsidiary, it is no longer a subsidiary, even if the parent still holds more than 50% of its equity shares. This means that it does not have to be 'consolidated' (i.e. included within the consolidated financial statements).

1.8 Common reporting date

Consolidated accounts combine the assets, liabilities, income and expenses of all the entities in the group.

IAS27 therefore requires that the financial statements of the parent and its subsidiaries that are used to prepare the consolidated financial statements should all be prepared with the same reporting date (the same financial year-end date), unless it is impracticable to do so.

If it is impracticable for a subsidiary to prepare its financial statements with the same reporting date as its parent, adjustments must be made for the effects of significant transactions or events that occur between the dates of the subsidiary's and the parent's financial statements. In addition, the reporting date of the parent and the subsidiary must not differ by more than three months.

1.9 Uniform accounting policies

Since the consolidated accounts combine the assets, liabilities, income and expenses of all the entities in the group, it is important that the methods used for recognition and measurement of all these items should be the same for all the entities in the group.

IAS27 therefore states that consolidated financial statements must be prepared using uniform accounting policies. The policies used to prepare the financial statements in all the entities in the group must be the same.

Consolidated statement of financial position: the basic rules

- The basic rules
- Acquiring a subsidiary after incorporation: pre- and post-acquisition profits
- Directly-related acquisition costs

2 Consolidated statement of financial position: the basic rules

2.1 The basic rules

A consolidated statement of financial position brings together the assets and liabilities of the parent company and all its subsidiaries. Some adjustments are made to the assets and liabilities for the purpose of consolidation, but the assets of the group minus its liabilities are the group's equity.

The basic rules for preparing a consolidated statement of financial position can be illustrated with a simple example. In this example:

- the parent owns 100% of the equity of the subsidiary
- the parent acquired its investment in the subsidiary when the subsidiary was first established (so the acquisition date was the date that the subsidiary was created)
- the cost of the investment in the subsidiary is exactly equal to the fair value of the net assets in the subsidiary, as at the date of acquisition.

When all these conditions apply, a consolidated statement of financial position can be prepared as at the acquisition date of the subsidiary by:

- adding the assets of the parent and the subsidiary, line by line
- however, excluding the item 'investment in subsidiary' in the statement of financial position of the parent company
- adding the liabilities of the parent and the subsidiary, line by line.

The equity and reserves in the consolidated statement of financial position consist of:

- the equity and reserves of the parent, and
- only the reserves of the subsidiary that have been earned since its acquisition. As at the date of acquisition, these are zero.



Example

A parent entity P acquired 100% of the equity shares of a subsidiary entity S when the subsidiary was first established. The net assets of S when it was first set up (total assets minus total liabilities) were valued at \$120,000 and P paid \$120,000 to acquire these net assets.

The summary statements of financial position of both entities when S was established and P acquired 100% ownership were as follows.

	Parent P	Subsidiary S
	\$	\$
Non-current assets:		
Property, plant and equipment	640,000	125,000
Investment in S	120,000	-
	<u>760,000</u>	<u>125,000</u>
Current assets	140,000	20,000
	<u>900,000</u>	<u>145,000</u>
Equity		
Equity shares of \$1 each	200,000	80,000
Share premium	250,000	40,000
Retained earnings	350,000	-
	<u>800,000</u>	<u>120,000</u>
Current liabilities	100,000	25,000
	<u>900,000</u>	<u>145,000</u>

A consolidated statement of financial position as at the date of incorporation can be prepared as follows:

P Group: consolidated statement of financial position as at the date of acquiring S

Non-current assets:		\$
Property, plant and equipment	(640,000 + 125,000)	765,000
Current assets	(140,000 + 20,000)	<u>160,000</u>
		<u>925,000</u>
Equity		
Ordinary shares of \$1 each	(parent company only)	200,000
Share premium	(parent company only)	250,000
Retained earnings		<u>350,000</u>
		800,000
Bank loans	(100,000 + 25,000)	<u>125,000</u>
		<u>925,000</u>

Note: In practice, there is no reason to prepare a consolidated statement of financial position when a subsidiary is acquired. However, it is used here to illustrate the basic principles of consolidation, before going on to consider what happens after the subsidiary has been acquired.

2.2 Acquiring a subsidiary after incorporation: pre- and post-acquisition profits

Subsidiaries are often acquired after they have been incorporated or established, and after they have been in business for some time. The acquired subsidiary will have some accumulated profits (retained earnings) at the date of the acquisition. These are called 'pre-acquisition profits'.

Pre-acquisition profits of a subsidiary are not included as retained earnings in the consolidated financial statements – they are dealt with as part of the purchased goodwill calculation (see below).

However, **post-acquisition profits** of a subsidiary **are** included in group profits in the consolidated statement of comprehensive income, as a part of the profits of the entire group. They are also included in the retained earnings of the group, and so are included in the consolidated statement of financial position.



Example

A parent P acquired 100% of the share capital of subsidiary S on 1 January Year 3.

The net assets of S (total assets minus total liabilities) were valued at \$200,000 at the date of acquisition and P paid \$200,000 to acquire the shares in S.

(**Note:** This means that there is no purchased goodwill. Goodwill is explained later).

The summary statements of financial position of both entities at 1 January Year 3 and at 31 December Year 3 are as follows.

	At the acquisition date		At the end of the year	
	1 January Year 3		31 December Year 3	
	\$	\$	\$	\$
Non-current assets:				
Property, plant and equipment	670,000	170,000	680,000	245,000
Investment in S	200,000	-	200,000	-
	<u>870,000</u>	<u>170,000</u>	<u>880,000</u>	<u>245,000</u>
Current assets	110,000	80,000	175,000	90,000
	<u>980,000</u>	<u>250,000</u>	<u>1,055,000</u>	<u>335,000</u>
Equity				
Equity shares	150,000	30,000	150,000	30,000
Share premium	280,000	90,000	280,000	90,000
Retained earnings	380,000	80,000	470,000	140,000
	<u>810,000</u>	<u>200,000</u>	<u>900,000</u>	<u>260,000</u>
Current liabilities	170,000	50,000	155,000	75,000
	<u>980,000</u>	<u>250,000</u>	<u>1,055,000</u>	<u>335,000</u>

During the year to 31 December Year 3, entity P made a profit after tax of \$90,000 and entity S made a profit after tax of \$60,000. Neither entity paid any dividend.

The **consolidated profit for the year** is $\$90,000 + \$60,000 = \$150,000$, because all the profits of S are post-acquisition profits. (S was acquired on 1 January).

The **consolidated statement of financial position at the date of the acquisition of S**, at 1 January Year 3, is as follows. Note that none of the pre-acquisition retained earnings of S are included in the consolidated statement of financial position.

P Group

**Consolidated statement of financial position at the date of acquisition of S
1 January Year 3**

		\$
Non-current assets:		
Property, plant and equipment	(670,000 + 170,000)	840,000
Current assets	(110,000 + 80,000)	190,000
		1,030,000
Equity		
Equity shares	(parent company only)	150,000
Share premium	(parent company only)	280,000
Consolidated retained earnings	(parent company only)	380,000
		810,000
Current liabilities	(170,000 + 50,000)	220,000
		1,030,000

The **consolidated statement of financial position at 31 December Year 3** is as follows. Note that consolidated retained earnings of the group include both the profits of the parent P and the post-acquisition profits of the subsidiary S. The post-acquisition profit of S is its profit in the whole of Year 3, \$60,000 – since it was acquired on 1 January.

P Group

Consolidated statement of financial position at 31 December Year 3

		\$
Non-current assets:		
Property, plant and equipment	(680,000 + 245,000)	925,000
Current assets	(175,000 + 90,000)	265,000
		1,190,000
Equity		
Equity shares	(parent company only)	150,000
Share premium	(parent company only)	280,000
Consolidated retained earnings	In \$000: (470 + 60)	530,000
		960,000
Current liabilities	(155,000 + 75,000)	230,000
		1,190,000

Other reserves

Sometimes a subsidiary has reserves other than retained earnings. The same basic rules apply.

If a reserve existed in the acquired subsidiary at the acquisition date, it is included in the goodwill calculation and treated in the same way as pre-acquisition profits.

If a reserve arose after the acquisition date, it is treated in the same way as post-acquisition profits.

2.3 Directly-related acquisition costs

When a company acquires shares in a new subsidiary, the main cost of the acquisition is the purchase price paid for the shares, to buy them from the existing shareholders.

In addition, the acquiring company will incur some expenses that are directly related to the acquisition, such as the costs of professional advisers, including legal fees and accounting fees.

These directly-related acquisition costs or expenses must be written off to profit and loss as an expense in the year of acquisition.

This will be explained in more detail in the section on purchased goodwill.

Consolidated statement of financial position: purchased goodwill

- The nature of purchased goodwill
- The cost of acquisition and directly-related acquisition costs
- Accounting for purchased goodwill: impairment
- Goodwill and mid-year acquisition
- Acquired intangible assets
- Contingent consideration

3 Consolidated balance sheet: purchased goodwill

3.1 The nature of purchased goodwill

When a parent company acquires a subsidiary company, the price it pays is normally more than the fair value of the net assets of the subsidiary. This is because the market value of a company is normally more than the value of its net assets.

The difference between the fair value of the purchase price paid and the fair value of the net assets acquired is purchased goodwill (usually called simply 'goodwill').

	\$
Cost of the acquisition	A
Fair value of net assets acquired	B
Goodwill	<u>A – B</u>

Purchased goodwill is included in the consolidated statement of financial position, as an intangible asset. (In this respect, purchased goodwill differs from internally-generated goodwill, which is not included in financial statements.)

An important point to note is that the **initial cost of goodwill** is measured at the **date of acquisition** of the subsidiary.

3.2 The cost of acquisition and directly-related acquisition costs

Purchased goodwill is the difference between the cost of acquisition of a subsidiary and the fair value of the net assets acquired.

It was stated in the previous section that in any acquisition there will be some costs directly related to the acquisition, such as advisers' fees. Until IFRS 3 was revised from 2008, it was the accepted practice to include these directly-related costs in the cost of acquisition: this meant that the costs were included in the calculation of purchased goodwill.

With the revision of IFRS 3, this is no longer permitted.

- Costs directly related to the acquisition should not be included in the costs of the acquisition. Instead, they are treated as an expense and written off against retained profits in full in the year of acquisition.
- Purchased goodwill therefore excludes these directly-attributable costs of acquisition.



Example

A parent P acquired 100% of the share capital of entity S on 1 January Year 3. P paid \$230,000 to acquire the shares in S. The summary statements of financial position of both companies at 31 December Year 3 are as follows.

	Summary statements of financial position at 31 December Year 3	
	P	S
	\$	\$
Assets:		
Investment in S, at cost	230,000	-
Other assets	570,000	240,000
	<u>800,000</u>	<u>240,000</u>
Equity		
Equity shares	200,000	50,000
Share premium	100,000	20,000
Retained earnings at 1 January Year 3	400,000	100,000
Retained profit for year to 31 December Year 3	40,000	25,000
	<u>740,000</u>	<u>195,000</u>
Current liabilities	60,000	45,000
	<u>800,000</u>	<u>240,000</u>

At the date of acquisition, the fair value of the net assets of S were \$170,000.

Expenses directly related to the acquisition were \$75,000 but these have not been included in the figures above for P. There has been no impairment of goodwill during Year 3.

A consolidated statement of financial position as at 31 December Year 3 is prepared as follows.

Workings

Purchased goodwill = \$230,000 - \$170,000 = \$60,000.

Directly-attributable expenses of the acquisition are \$75,000. Since these have not yet been accounted for, they should reduce the net assets of P by \$75,000 and also reduce its retained profits by the same amount.

P Group**Consolidated statement of financial position as at 31 December Year 3**

	\$	\$
Assets:		
Goodwill (see working)		60,000
Other assets (570 + 240 – 75 expenses of acquisition)		735,000
Total assets		<u>795,000</u>
Equity		
Equity shares (P only)		200,000
Share premium (P only)		100,000
Retained earnings of P at 31 December Year 3	440,000	
Less: Directly attributable acquisition costs	(75,000)	
S: post-acquisition profits	<u>25,000</u>	
		<u>390,000</u>
		690,000
Current liabilities (60 + 40)		<u>105,000</u>
Total equity and liabilities		<u>795,000</u>

3.3 Accounting for purchased goodwill: impairment

Goodwill is accounted for in the consolidated statement of financial position as an intangible non-current asset.

Unlike most other non-current assets, it is not depreciated or amortised.

- Goodwill should not be amortised.
- However, goodwill should be subject to an annual impairment review.

The value of goodwill should be written down in the consolidated statement of financial position whenever there is impairment.

The amount of the impairment is also included as a charge against profit in the consolidated statement of comprehensive income.

**Example**

Entity P acquires 100% of the share of Entity S for \$150,000. The fair value of the net assets of S at the acquisition date was \$110,000.

The cost of goodwill is therefore $\$150,000 - \$110,000 = \$40,000$. This should be reported as an intangible non-current asset. It should be subject to regular impairment review, but until there is impairment, the value of the goodwill should remain at \$40,000.



Example

A parent P acquired 100% of the share capital of entity S on 1 January Year 2. P paid \$170,000 to acquire the shares in S. The summary statements of financial position of both companies at 1 January Year 1 and at 31 December Year 1 are as follows.

	At the acquisition date 1 January Year 2		At the end of the year 31 December Year 2	
	P	S	P	S
	\$	\$	\$	\$
Non-current assets:				
Property, plant and equipment	460,000	90,000	490,000	90,000
Investment in S	170,000	-	170,000	-
	<u>630,000</u>	<u>90,000</u>	<u>660,000</u>	<u>90,000</u>
Current assets	120,000	60,000	175,000	90,000
	<u>750,000</u>	<u>150,000</u>	<u>835,000</u>	<u>180,000</u>
Equity				
Equity shares	100,000	20,000	100,000	20,000
Share premium	200,000	10,000	200,000	10,000
Retained earnings	300,000	80,000	380,000	100,000
	<u>600,000</u>	<u>110,000</u>	<u>680,000</u>	<u>130,000</u>
Current liabilities	150,000	40,000	155,000	50,000
	<u>750,000</u>	<u>150,000</u>	<u>835,000</u>	<u>180,000</u>

The valuations of the assets and liabilities in the statement of financial position of S at 1 January represent fair values for the assets and liabilities.

During the year to 31 December Year 2, parent P made a profit after tax of \$80,000 and subsidiary S made a profit after tax of \$20,000. Neither entity paid any dividend.

The **purchased goodwill** is calculated at the acquisition date. In this example it is:

At the acquisition date:	\$
Non-current assets of S	90,000
Current assets of S	60,000
Liabilities of S	<u>(40,000)</u>
Net assets of S	110,000
Purchase cost of shares (cost of acquisition)	<u>170,000</u>
Purchased goodwill	<u>60,000</u>

The **consolidated statement of financial position at the date of the acquisition of S** is as follows. Note that none of the pre-acquisition retained earnings of S are included in the consolidated statement of financial position and that the purchased goodwill is shown as a non-current intangible asset.

P Group

**Consolidated statement of financial position as at the date of acquisition of S
1 January Year 2**

		\$
Non-current assets:		
Property, plant and equipment	(460,000 + 90,000)	550,000
Goodwill at cost		60,000
Current assets	(120,000 + 60,000)	<u>180,000</u>
		<u>790,000</u>
Equity		
Ordinary shares (P only)		100,000
Share premium (P only)		200,000
Consolidated retained earnings		<u>300,000</u>
		600,000
Current liabilities	(150,000 + 40,000)	<u>190,000</u>
		<u>790,000</u>



Example: continued

Suppose that a review at 31 December Year 2 finds that there has been some impairment of goodwill, and the value of goodwill is now only \$50,000.

The impairment of \$10,000 is accounted for by reducing the value of the goodwill in the consolidated statement of financial position, and reducing the consolidated profit for the group for the year by \$10,000.

The (retained) post-acquisition profits of the subsidiary are calculated as follows:

		\$
Retained earnings of Sat 31 December Year 2	100,000	
Retained earnings of Sat the date of acquisition	<u>(80,000)</u>	
Retained post-acquisition profits of S	<u>20,000</u>	

The **consolidated statement of financial position at 31 December Year 2** is as follows. Note that consolidated retained earnings of the group include both the profits of the parent P and the post-acquisition profits of the subsidiary S.

P Group: Consolidated statement of financial position at 31 December Year 2

		\$
Non-current assets:		
Property, plant and equipment	(490,000 + 90,000)	580,000
Goodwill	(60,000 – 10,000 impairment)	50,000
		630,000
Current assets	(175,000 + 90,000)	265,000
		895,000
Equity		
Ordinary shares	(parent company only)	100,000
Share premium	(parent company only)	200,000
Consolidated retained earnings	(see working below)	390,000
		690,000
Current liabilities	(155,000 + 50,000)	205,000
		895,000

Working: Consolidated retained earnings

		\$
Retained earnings of P at 31 December Year 2		380,000
Post-acquisition retained profits of S		20,000
		400,000
Impairment of goodwill		(10,000)
Consolidated retained earnings at 31 December		390,000

Note: negative goodwill and bargain purchases

In very unusual circumstances, goodwill might be 'negative'. This will happen if the price paid to acquire the shares in a subsidiary is less than the fair value of the net assets acquired.

IFRS3 does not use the term 'negative goodwill': instead it refers to 'bargain purchases'. However 'negative goodwill' is a convenient way of expressing the financial effect when the acquisition cost is less than the fair value of the net assets acquired.

When a bargain purchase occurs, the 'negative goodwill' should be added to the consolidated profit for the group for the year. There will be no goodwill in the consolidated statement of financial position.

Before it is concluded that there has been a bargain purchase and that negative goodwill has arisen, the acquirer should reassess the measurement of the subsidiary's identifiable assets, liabilities, and contingent liabilities, and possibly also the cost of the acquisition. Only the excess remaining after this re-assessment

has been made should be treated as negative goodwill and added to the group's consolidated profit for the year.

3.4 Goodwill and mid-year acquisition

Acquisitions do not usually occur conveniently at the end of the financial year. When an acquisition occurs during the financial year, it may be necessary to identify the subsidiary's statement of financial position at the acquisition date. The problems are:

- to decide the fair value of the subsidiary's net assets at the acquisition date
- to divide the subsidiary's profit in the year of acquisition between profits that are pre-acquisition and profits that are post-acquisition.

The first consolidated statement of financial position with the new subsidiary will not be prepared until the end of the financial year. There is no reason to prepare a consolidated statement of financial position at the date of acquisition of the subsidiary. Dividing the subsidiary's profits for the year between pre-acquisition and post-acquisition is therefore done retrospectively at the end of the year, on a 'fair basis' of allocation of total profit for the year between pre- and post-acquisition.



Example

Parent entity P acquired 100% of the equity of entity S on 1 May Year 2 at a cost of \$500,000. The statement of financial position of Entity S, which did not pay any dividend during the year, was as follows at the beginning and at the end of Year 2. The values of the assets and liabilities shown in the statement of financial position of Entity S are assumed to represent fair values.

	Entity S	
	At 1 January	At 31 December
	\$	\$
Non-current assets:		
Property, plant and equipment	370,000	400,000
Current assets	100,000	145,000
	470,000	545,000
Equity		
Equity shares	100,000	100,000
Share premium	50,000	50,000
Retained earnings	300,000	360,000
	450,000	510,000
Current liabilities	20,000	35,000
	470,000	545,000

The net assets on 1 January were \$450,000 (= \$470,000 – \$20,000) and on 31 December net assets were \$510,000 (= \$545,000 – \$35,000). Since there has been no dividend payment, the profit of S for the year was therefore the increase in its retained earnings reserve during the year. This was \$60,000 (= \$360,000 – \$300,000).

It could be assumed that profits accumulate at an even rate during the year, so that at the acquisition date on 1 May, the profits of S for the year were \$20,000 (= \$60,000 × 4/12). These are pre-acquisition profits.

The post-acquisition profits of Entity S are \$40,000 (= \$60,000 × 8/12).

Goodwill could therefore be calculated as follows:

	\$
Net asset of subsidiary at 1 January	450,000
Profit for the 4 months to 1 May	20,000
Net assets of S at 1 May	470,000
Cost of acquisition	500,000
Goodwill	30,000

3.5 Acquired intangible assets

When a company acquires a subsidiary, it may identify certain specific intangible assets of the subsidiary that it has acquired, which are not included in the subsidiary's statement of financial position. These might be 'market-related', 'customer-related', 'artistic-related' or 'technology-related' intangible assets.

If these assets are separately identifiable and can be measured reliably, they should be included in the consolidated statement of financial position as intangible assets, and accounted for as such. (They should be amortised and might also be subject to impairment.)

Purchased goodwill is the difference between the acquisition price and the fair value of all the identifiable net assets of the subsidiary, including the intangible or intangibles.



Example

Parent entity P acquired 100% of the equity of entity S on 14 July Year 6 at a price of \$9 million. The fair value of the net assets of S at this date was \$6.5 million, but in addition P recognises a market-related intangible asset of S which it values at \$900,000.

This intangible asset should be included in the consolidated statement of financial position, initially at cost but then at cost less accumulated amortisation and impairment.

The purchased goodwill on acquisition is calculated as follows:

	\$
Fair value of net assets acquired	6,500,000
Plus value of market-related intangible asset	<u>900,000</u>
	7,400,000
Cost of acquisition	<u>9,000,000</u>
Goodwill	<u>1,600,000</u>

3.6 Contingent consideration

Sometimes, when one company acquires a controlling interest in another, the buyer agrees with the selling shareholders that a part of the purchase consideration should be dependent on a future outcome or a particular event.

For example, suppose that company H acquires 100% of the shares in entity S from its two owners. The purchase price for the shares is \$2 million in cash plus an extra \$1 million in cash that is conditional on the acquired company achieving a profit after tax of at least \$200,000 in the first twelve months after acquisition. The additional \$1 million would then be payable 18 months after the acquisition date.

The additional payment of \$1 million is dependent on profits of the subsidiary after acquisition and is therefore contingent consideration.

IFRS 3 (revised) states that the parent company should recognise all contingent consideration as part of the acquisition price paid for the subsidiary. In the example above, the consideration paid for the acquisition of shares in entity S is \$3 million, and purchased goodwill should be calculated using this amount as the cost of the acquisition. The consolidated statement of financial position should also include a liability for \$1 million for the future cash payment, since the consideration will be payable in cash: this liability will be either a current or non-current liability, depending on how soon the consideration will be paid after the end of the reporting period.

If the contingent consideration is not paid in the future, or the full amount is not payable, perhaps because the conditions for its payment are not met, the change in fair value of the acquired subsidiary should usually be recognised in profit or loss.

Consolidated statement of financial position: non-controlling interests

- Definition of non-controlling interest (minority interest)
- Accounting for non-controlling interests (minority interests)
- Accounting for non-controlling interests after acquisition
- Value of NCI by the fair value method: introduction

4 Consolidated statement of financial position: non-controlling interests

4.1 Definition of non-controlling interest (minority interest)

When a parent entity acquires less than 100% of the equity shares in a subsidiary, the remainder of the shares in the subsidiary are held by other shareholders. These are called the non-controlling interest or minority interest in the subsidiary. The abbreviation 'NCI' is used for non-controlling interests.

For example, P might acquire 60% of the shares in S.

- It has acquired 60% of the 'equity' ownership of S.
- The remaining 40% of the equity in S is owned by the non-controlling interest.

Non-controlling interest (NCI) is defined by IAS27 as: 'the equity in a subsidiary not attributable ... to a parent.'

4.2 Accounting for non-controlling interests (minority interests)

In principle, there are two ways that the non-controlling interest or minority interest could be accounted for in consolidated accounts:

- **Method 1.** The non-controlling interest could be excluded, and only the parent's share of the assets and liabilities of the subsidiary would be consolidated into the consolidated financial statements.
- **Method 2.** The total assets and liabilities of the entities in the group could be presented in the consolidated financial statements, including the share attributable to non-controlling interests.

Method 2 is used.

- The consolidated statement of financial position must present the assets, liabilities and equity of the group as a whole, including the non-controlling interest. The amount of non-controlling interest must then be presented in the consolidated statement of financial position as an item within equity. However, it must be shown separately from the equity attributable to the 'owners of the parent' (shareholders of the parent company).
- Similarly the consolidated statement of comprehensive income for the group must show the total profit for the group as a whole, with the share attributable

to the non-controlling interest is shown separately from the share attributable to the owners of the parent.

This presentation reflects the fact that although the parent does not actually **own** 100% of the assets and liabilities of the group, it **controls** 100% of these assets and liabilities.

NCI and goodwill

A problem with accounting for non-controlling interests is the treatment of goodwill.

- When a parent company acquires 100% of a subsidiary, it acquires 100% of the goodwill in the subsidiary, which is included in the consolidated statement of financial position as purchased goodwill.
- When a parent company acquires less than 100% of a subsidiary, there is presumably some goodwill in the subsidiary that is attributable to the non-controlling interests. However the value of this goodwill is likely to be less than the goodwill attributable to the parent company, not only because the NCI owns a smaller proportion of the shares but also because the value of goodwill is usually enhanced for the parent by having a controlling interest.

If there is some goodwill in the subsidiary that is attributable to the NCI, a question to resolve is whether this goodwill should be included in the consolidated statement of financial position.

IFRS 3 (revised) allows two methods of accounting for NCI:

- **Method 1.** Do not recognise any goodwill for the NCI in the consolidated statement of financial position. NCI should be valued at a proportionate share of the identifiable net assets of the subsidiary. For example if the NCI in a subsidiary is 30% and the identifiable net assets of the subsidiary are \$1,000,000, the NCI should be included in the consolidated statement of financial position at \$300,000.
- **Method 2.** Recognise the goodwill attributable to the NCI in the consolidated statement of financial position, as at the date of acquisition. This goodwill cannot subsequently be re-valued, unless there is impairment and the goodwill should then be written down in value. This method of accounting for NCI is called the 'fair value' method.

The 'fair value' method of accounting for NCI was introduced for the first time by IFRS 3 (revised). The valuation of NCI at a proportionate share of the identifiable net assets of the subsidiary is the 'traditional' method of accounting for NCI by companies that use IFRSs to prepare their financial statements.

This section describes this 'traditional' method. The fair value method is explained in the next section.

A step-by-step approach to accounting for NCI

An example will be used to demonstrate a step-by-step approach to accounting for NCI in the consolidated statement of financial position (where the non-controlling interest is valued at a proportionate share of the identifiable net assets of the subsidiary.)



Example

Parent P acquired 400,000 shares in Entity S on 1 January at a cost of \$950,000, when the statements of financial position of P and S were as follows. (The values of all assets and liabilities represent fair values).

	At the acquisition date	
	P	S
	\$	\$
Non-current assets:		
Property, plant and equipment	1,400,000	900,000
Investment in S	950,000	-
	<u>2,350,000</u>	<u>900,000</u>
Current assets	400,000	300,000
	<u>2,750,000</u>	<u>1,200,000</u>
Equity		
Equity shares of \$1 each	800,000	500,000
Share premium	400,000	100,000
Revaluation reserve	200,000	100,000
Retained earnings	1,050,000	300,000
	<u>2,450,000</u>	<u>1,000,000</u>
Liabilities	300,000	200,000
	<u>2,750,000</u>	<u>1,200,000</u>

The parent company's accounting policy is to value non-controlling interests at their proportionate share of the net assets of the subsidiary.

To prepare a consolidated statement of financial position as at the acquisition date, the following steps should be taken.

Step 1. Establish the group share (parent company share) in the subsidiary and the percentage owned by non-controlling interests.

Here, there are 500,000 shares in the subsidiary, and the parent owns 400,000 of them. The proportionate shareholdings are:

	%
Parent company: $(400,000/500,000) \times 100\%$	80
Non-controlling interest: $(100,000/500,000) \times 100\%$	<u>20</u>
	<u>100</u>

Step 2. Calculate the net assets of the subsidiary S at the acquisition date and at the end of the reporting period

We need to know the net assets of the subsidiary at the acquisition date in order to calculate the purchased goodwill attributable to the parent company.

We need to know the net assets at the acquisition date and at the end of the reporting period in order to calculate the post-acquisition profits of the subsidiary.

In this example, the acquisition date and the reporting date are the same, and there are no post-acquisition profits from the subsidiary yet. However, in most examination questions on consolidation, you will be expected to establish the net assets of the subsidiary at the two different dates (acquisition date and end of the reporting period).

The net assets of the subsidiary can be calculated as total assets minus total liabilities. However, for the purpose of consolidation, it is often better to calculate net assets as share capital plus reserves. If there are any fair value adjustments to the assets of the subsidiary at the acquisition date, these must be provided for in the calculation.

Net assets at the acquisition date (fair value)	\$
Equity shares	500,000
Share premium	100,000
Revaluation reserve	100,000
Retained earnings	300,000
Net assets of the subsidiary	1,000,000

Step 3. Calculate the goodwill

The calculation of the goodwill must allow for the fact that the parent has acquired only 80% of the fair value of the net assets in the subsidiary.

Fair value of net assets acquired:	\$
Cost of the acquisition	950,000
Parent's share of net assets of the subsidiary at acquisition (= \$1,000,000 × 80%)	800,000
Goodwill	150,000

Step 4. Calculate the non-controlling interest (minority interest share)

When the non-controlling interest is valued at a proportionate share of the net assets of the subsidiary, no goodwill is attributed to the NCI.

The non-controlling interest owns 20% of the net assets of the subsidiary. At the date of acquisition, this is:

$$\text{Non-controlling interest} = \$1,000,000 \times 20\% = \$200,000.$$

The consolidated statement of financial position as at the date of acquisition is prepared as follows. Note that the non-controlling interest should be shown as a part of equity, but separate from the parent's share.

P Group

Consolidated statement of financial position at the date of acquisition of S

	\$000
Tangible non-current assets (1,400 + 900)	2,300
Goodwill	150
	<u>2,450</u>
Current assets (400 + 300)	700
Total assets	<u>3,150</u>
Equity and liabilities	
Equity attributable to owners of the parent	
Share capital	800
Share premium	400
Revaluation reserve	200
Retained earnings	1,050
	<u>2,450</u>
Non-controlling interest	<u>200</u>
Total equity	<u>2,650</u>
Liabilities (300 + 200)	500
	<u>3,150</u>
Total equity and liabilities	<u>3,150</u>

4.3 Accounting for non-controlling interests after acquisition

The same approach is required after acquisition for calculating the non-controlling interest and presenting it in the consolidated statement of financial position. The only difference with consolidation after the acquisition date is that the parent's share of the subsidiary's profits must be separated into pre-acquisition and post-acquisition.

- Only the post-acquisition profits of the subsidiary are used to calculate the parent's consolidated retained earnings.
- In the year of acquisition, only the post-acquisition profits of the subsidiary in that year are included in profit in the consolidated statement of comprehensive income.

The non-controlling interest in the equity of the subsidiary is the minority interest percentage of the total net assets of the subsidiary. To the non-controlling interest, the distinction between pre-acquisition and post-acquisition is totally irrelevant.

Five steps for preparing a consolidated statement of financial position with a non-controlling interest

When the non-controlling interest is valued at a proportionate share of the net assets of the subsidiary, a five-step approach is recommended for preparing a consolidated statement of financial position. Four of the steps have been described earlier. The additional step is introduced below as Step 5.

- **Step 1.** Calculate the parent's percentage share and the non-controlling interest percentage share in the subsidiary.
- **Step 2.** Calculate the net assets of the subsidiary at the date of acquisition and at the end of the reporting period. The difference between the net assets of the subsidiary at these two dates is used to calculate the post-acquisition accumulated profits of the subsidiary.

	At end of the reporting period	At acquisition	Post acquisition
	\$		
Equity shares	X	X	-
Retained earnings	Y	Z	Y – Z
	<u>X + Y</u>	<u>X + Z</u>	

- **Step 3.** Calculate the goodwill on acquisition. Then reduce it by any accumulated impairments to date, to calculate the figure for goodwill in the consolidated statement of financial position.

Cost of investment	A
Less: Parent's share of fair value of subsidiary's net assets acquired	<u>(B)</u>
	A – B
Less: Impairment of goodwill since acquisition	<u>(C)</u>
	<u>A + B – C</u>

- **Step 4.** Calculate the non-controlling interest

Controlling interest % × Subsidiary's net assets at the end of the reporting period

- **Step 5.** Calculate consolidated retained earnings, using the post-acquisition profits of the subsidiary now identified in Step 2 and any impairment to goodwill from Step 3.

Parent's retained earnings	A
Parent's share of subsidiary's post-acquisition profits	B
Minus: Impairment of goodwill since acquisition	<u>(C)</u>
	<u>A + B – C</u>

You can then prepare the consolidated statement of financial position.



Example

The statements of financial position of a parent company P and its subsidiary S at 31 December Year 3 are as follows:

	Parent P	Subsidiary S
	\$	\$
Non-current assets:		
Property, plant and equipment	408,000	100,000
Investment in S	142,000	-
	<u>550,000</u>	<u>100,000</u>
Current assets	<u>120,000</u>	<u>40,000</u>
	<u>670,000</u>	<u>140,000</u>
Equity		
Equity shares of \$0.50 each	100,000	20,000
Share premium	100,000	50,000
Retained earnings	400,000	60,000
	<u>600,000</u>	<u>130,000</u>
Bank loan	<u>70,000</u>	<u>10,000</u>
	<u>670,000</u>	<u>140,000</u>

P acquired 32,000 shares in S on 1 January Year 3 when the retained earnings of S were \$20,000. The values for assets and liabilities in the statement of financial position for S represent fair values.

Neither company has paid any dividends during the year. A review of goodwill at 31 December Year 3 found that goodwill had been impaired, and was now valued at \$55,000.

Required

Prepare a consolidated statement of financial position as at 31 December Year 3.



Answer

Step 1. Calculate the group share (parent company's percentage share) and the non-controlling interest percentage share in the subsidiary.

The total number of shares in the subsidiary is $\$20,000 / \0.50 per share = 40,000 shares. P acquired 32,000 shares.

	%
Parent: $(32,000/40,000) \times 100\%$	80
Non-controlling interest: $(8,000/40,000) \times 100\%$	<u>20</u>
	<u>100</u>

Step 2. Calculate the net assets of S at acquisition and at the end of the reporting period.

	At end of the reporting period	At acquisition	Post acquisition
	\$		
Equity shares	20,000	20,000	-
Share premium	50,000	50,000	-
Retained earnings	60,000	20,000	40,000
	<u>130,000</u>	<u>90,000</u>	

You should assume that the subsidiary has not issued any shares since acquisition, so the figures for equity shares and share premium will be the same at acquisition as at the end of the reporting period.

Step 3. Calculate the goodwill.

	\$
Cost of the acquisition	142,000
Minus parent's share of the subsidiary's net assets at acquisition (\$90,000 (Step 2) × 80% (Step 1))	(72,000)
Goodwill	<u>70,000</u>
Minus impairment of goodwill to date	(15,000)
Balance carried forward	<u>55,000</u>

Step 4. Calculate the non-controlling interest (minority interest share)

Share of net assets of the subsidiary at the end of the reporting period

Non-controlling interest = \$130,000 (Step 2) × 20% (Step 1) = **\$26,000**

Step 5. Calculate consolidated retained earnings.

	\$
Parent's retained earnings	400,000
Parent's share of subsidiary's post-acquisition profits (80% (Step 1) × \$40,000 (Step 2))	32,000
Minus goodwill impairment since acquisition (Step 3)	<u>(15,000)</u>
Consolidated retained earnings	<u>417,000</u>

The consolidated statement of financial position as at the end of the reporting period is as follows.

P Group**Consolidated statement of financial position as at 31 December Year 3**

	\$000
Tangible non-current assets (408,000 + 100,000)	508,000
Goodwill	55,000
	<u>563,000</u>
Current assets (120,000 + 40,000)	160,000
Total assets	<u>723,000</u>
Equity and liabilities	
Equity attributable to owners of the parent	
Share capital (parent only)	100,000
Share premium (parent only)	100,000
Retained earnings	417,000
	<u>617,000</u>
Non-controlling interest	26,000
Total equity	643,000
Bank loans (70,000 + 10,000)	80,000
Total equity and liabilities	<u>723,000</u>

4.4 Valuation of NCI by the fair value method: introduction

This section of the chapter has explained the accounting treatment of NCI in the consolidated statement of financial position when the NCI is valued at a proportionate share of the net assets of the subsidiary.

IFRS 3 (revised **Error! Bookmark not defined.**) **Error! Bookmark not defined.** introduced an alternative accounting treatment, in which NCI is measured at fair value as at the date of acquisition. The fair value of the NCI is assumed to include some attributable goodwill.

This alternative method of accounting for NCI is explained in the next section, in which fair values are considered more generally.

Consolidated statement of financial position: fair value adjustments

- Why fair values are used in consolidated financial statements
- Adjusting the assets and liabilities acquired
- Fair value adjustments in a subsequent period
- Fair value method of accounting for NCI

5 Consolidated balance sheet: fair value adjustments

5.1 Why fair values are used in consolidated financial statements

Goodwill is recognised by the acquirer as an asset from the acquisition date.

It is initially measured as the difference between:

- the cost of the acquisition and
- the parent's share of the fair values of the subsidiary's identifiable assets and liabilities (including contingent liabilities).

An examination question might tell you to assume that the fair value of the assets and liabilities of the subsidiary at the acquisition date are represented by their values in the subsidiary's statement of financial position. However, if the values in the statement of financial position are not the fair values there must be adjustments to the assets and liabilities of the subsidiary, for the purpose of consolidation. These fair value adjustments must all be made before the value of the purchased goodwill is calculated.

There are two reasons for making fair value adjustments:

- Consolidated accounts are prepared from the viewpoint of the **group**. Therefore the subsidiary's assets and liabilities must be shown at their cost to the group, not their original cost to the subsidiary. The cost to the group is the amount that the parent paid for them: their fair value at the date of acquisition.
- As well as identifiable assets and liabilities, the parent acquires goodwill. The cost of goodwill is the difference between the cost of the acquisition and the assets and liabilities acquired. If the subsidiary's assets and liabilities are not measured at fair value, the cost of goodwill is incorrect.

5.2 Adjusting the assets and liabilities acquired

Fair value is the amount at which an asset could be exchanged or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

The identifiable assets, liabilities and contingent liabilities of a subsidiary may only be recognised if they satisfy the definitions of assets and liabilities. Recognition is therefore permitted if the following conditions are satisfied:

- For an asset other than an intangible asset, it is probable that any associated future economic benefits will flow to the acquirer, and its fair value can be measured reliably;

- For a liability other than a contingent 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;
- For an intangible asset or a contingent liability, its fair value can be measured reliably.

The table below shows how different types of asset and liability should be valued.

Item	Fair value
Marketable investments	Current market value
Non-marketable investments	Estimated values that take into consideration features such as: <ul style="list-style-type: none"> (a) price earnings ratios (b) dividend yield (c) expected growth rates of comparable investments
Trade and other receivables	Present values of the amounts to be received. This is normally the same as their carrying value (book value). Discounting is not usually required because amounts are expected to be received within a few months.
Inventories: Finished goods	Selling price less the sum of: <ul style="list-style-type: none"> (a) the costs of disposal, and (b) a reasonable profit allowance for the selling effort of the acquirer based on profit for similar finished goods.
Inventories: work in progress	Selling price of finished goods less the sum of: <ul style="list-style-type: none"> (a) costs to complete, (b) costs of disposal, and (c) a reasonable profit for the completing and selling effort based on profit for similar finished goods.
Inventories: raw materials	Current replacement costs
Land and buildings	Market value
Plant and equipment	Normally market value. Use depreciated replacement cost if market value cannot be used (e.g. because of the specialised nature of the plant and equipment or because the items are rarely sold, except as part of a continuing business).
Intangible assets	Use market value if available (should be by reference to an active market). Otherwise (if no active market exists) value on a basis that reflects the amount that the acquirer would have paid for the asset in an arm's length transaction between knowledgeable, willing parties based on the best information available.

Item	Fair value
Trade and other payables; long-term debt and other liabilities.	Present values of amounts to be disbursed in meeting the liability determined at appropriate current interest rates. For current liabilities this is normally the same as book value.
Contingent liabilities	The amounts that a third party would charge to assume those contingent liabilities.

The consolidated statement of financial position might include some assets and liabilities that would not normally be recognised in the financial statements or might not have been previously recognised in the subsidiary's financial statements.

Contingent liabilities of the subsidiary are recognised in the consolidated statement of financial position. They cannot be recognised in an entity's individual financial statements (IAS 37).

Restructuring costs

An acquirer should **not** recognise a liability for the cost of restructuring a subsidiary or for any other costs expected to be incurred as a result of the acquisition (including future losses).

This is because a plan to restructure a subsidiary after an acquisition cannot be a liability at the acquisition date. For there to be a liability (and for a provision to be recognised) there must have been an obligation to incur a future cost that was created or incurred in the past. This can only be the case if the subsidiary was already committed to the restructuring before the acquisition.

This means that the acquirer cannot recognise a provision and then subsequently release it to the consolidated profit in order to smooth profits or reduce losses after the acquisition. This form of creative accounting was common before the issue of IAS 37, but is no longer permitted.



Example

Entity P acquired 100% of the shares of Entity S on 1 May at a cost of \$700,000. The statements of financial position of the entities at the acquisition date were as follows.

	At the acquisition date	
	1 May	
	P	S
	\$	\$
Non-current assets:		
Property, plant and equipment	500,000	350,000
Investment in S	700,000	-
	<u>1,200,000</u>	<u>350,000</u>
Current assets		
Inventory	70,000	60,000
Other current assets	130,000	110,000
	<u>1,400,000</u>	<u>520,000</u>
Equity		
Ordinary shares	300,000	200,000
Share premium	200,000	100,000
Retained earnings	580,000	170,000
	<u>1,080,000</u>	<u>470,000</u>
Current liabilities	320,000	50,000
	<u>1,400,000</u>	<u>520,000</u>

The accounting policy of Entity P is to measure non-controlling interests at their proportionate share of the net assets of the subsidiary.

The fair value of the subsidiary's inventory at 1 May is estimated as \$52,000.

The fair value of the non-current assets of the subsidiary at 1 May is estimated as \$420,000.

The **goodwill** is calculated as follows:

	\$
Fair value of net assets:	
Non-current assets	420,000
Inventory	52,000
Other current assets	110,000
Liabilities	<u>(50,000)</u>
	532,000
Cost of the acquisition	<u>700,000</u>
Goodwill	<u>168,000</u>

A consolidated statement of financial position as at the date of acquisition will be as follows.

P Group
Consolidated statement of financial position as at the date of acquisition of S
1 May

Non-current assets:		\$
Property, plant and equipment	(500,000 + 420,000)	920,000
Goodwill at cost		168,000
Current assets		
Inventory	(70,000 + 52,000)	122,000
Other current assets	(130,000 + 110,000)	240,000
		<u>1,450,000</u>
Equity		
Ordinary shares (P only)		300,000
Share premium (P only)		200,000
Consolidated retained earnings		<u>580,000</u>
		1,080,000
Current liabilities	(320,000 + 50,000)	<u>370,000</u>
		<u>1,450,000</u>

Note that the statement of financial position of the subsidiary S at the date of acquisition is adjusted as follows, for the purpose of consolidation:

S
Adjusted statement of financial position at 1 May

		\$
Non-current assets:		
Property, plant and equipment		420,000
Current assets		
Inventory		52,000
Other current assets		<u>110,000</u>
		<u>582,000</u>
Equity		
Ordinary shares		200,000
Share premium		100,000
Revaluation reserve (420,000 – 350,000) – see Note 1		70,000
Retained earnings – see Note 2		<u>162,000</u>
		532,000
Current liabilities		<u>50,000</u>
		<u>582,000</u>

Notes

- (1) A revaluation reserve is created for the revaluation of the non-current assets. The retained earnings are adjusted downwards to allow for the downwards revaluation of the inventory by \$8,000.

- (2) The retained earnings of the subsidiary after the fair value adjustments are calculated as follows:

	\$
Retained earnings in the accounts of S as at the acquisition date	170,000
Minus downward adjustment to inventory valuation (60,000 – 52,000)	(8,000)
Adjusted retained earnings of subsidiary S	162,000

5.3 Fair value adjustments in a subsequent period

Fair value adjustments normally continue to affect the consolidated statement of financial position after the acquisition date.

Sometimes this is simply a matter of including the original fair value adjustment in the calculation of the subsidiary's net assets at the end of a subsequent reporting period.

	At end of subsequent reporting period	At acquisition	Post acquisition
	\$		
Equity shares	X	X	-
Retained earnings	X	X	X
Fair value adjustments	<u>X</u>	<u>X</u>	-
	<u>X</u>	<u>X</u>	

Occasionally the situation is more complicated. For example:

- Where a non-current asset has been revalued upwards, extra depreciation must be charged on the difference between the asset's book value and its fair value.
- Where a long-term loan has been discounted to net present value, the discount unwinds and the net present value of the loan increases in subsequent periods. The unwinding of the discount is an additional expense (a finance charge).

In both these cases:

- the amount of the fair value adjustment changes after the acquisition date; and
- post-acquisition reserves are affected.

	At end of subsequent reporting period	At acquisition	Post acquisition
	\$		
Equity shares	X	X	-
Retained earnings	X	Y	X – Y
Fair value adjustments	<u>X</u>	<u>Y</u>	<u>X - Y</u>
	<u>X</u>	<u>Y</u>	<u>X - Y</u>



Example

Entity P acquired 100% of the shares of Entity S on 1 January Year 1, when S had equity share capital of \$500,000 and retained earnings of \$200,000.

The summarised statement of financial position of S at 31 December Year 1 is shown below.

S

Statement of financial position at 31 December Year 1

	\$
Non-current assets:	
Property, plant and equipment	1,200,000
Current assets	300,000
	<u>1,500,000</u>
Equity	
Ordinary shares	500,000
Retained earnings	300,000
	<u>800,000</u>
Non-current liabilities: loan	500,000
Current liabilities	200,000
	<u>1,500,000</u>

At 1 January Year 1 the fair values of S's property, plant and equipment exceeded their book value by \$200,000. They had a remaining useful life of 5 years at this date. The long-term loan of \$500,000 is repayable on 31 December Year 5. The loan is interest-free, but the interest rate on a similar borrowing would be 10%.

The book values (carrying amounts) of the other assets and liabilities of S were approximately equal to their fair values at 1 January Year 1.

The effect of the fair value adjustments is as follows:

- Property, plant and equipment increases by \$200,000 at the acquisition date. In Year 1, additional depreciation of \$40,000 is charged. At 31 December Year 1, fair values exceed book values by \$160,000.
- At 1 January Year 1 the long-term loan is discounted to \$310,500 ($500,000 \times 0.621$). At 31 December Year 1 the loan is discounted to \$341,500 ($500,000 \times 0.683$). The unwinding of the discount is the difference between these two amounts: \$31,000. Discounting the long-term loan **increases** the net assets of S by \$189,500 at acquisition and by \$158,500 at the end of the reporting period.

The net assets of S are calculated below.

	At end of reporting period	At acquisition	Post acquisition
	\$	\$	\$
Equity shares	500,000	500,000	-
Retained earnings	300,000	200,000	100,000
Fair value adjustments:			
Non-current assets	160,000	200,000	(40,000)
Long term loan	158,500	189,500	(31,000)
	1,118,500	1,089,500	29,000

5.4 Fair value method of accounting for NCI

IFRS 3 (revised) allows an alternative method of measurement for non-controlling interests, which values the NCI at the date of acquisition at a fair value. This includes some goodwill in the subsidiary that is attributable to the NCI.

With this 'fair value' method, the preparation of the consolidated statement of financial position is similar to the method already described. The difference is that:

- Goodwill attributable to the NCI (asset) is included in goodwill in the consolidated statement of financial position
- NCI (equity) is increased by the amount of this goodwill.

By adding the goodwill attributable to the non-controlling interests to their proportionate share of the net assets of the subsidiary, the non-controlling interests are valued at their fair value as at the acquisition date.

IFRS 3 provides the following 'fair value' formula for the calculation of total goodwill in the consolidated statement of financial position as at the acquisition date:

	\$
Purchase consideration paid by the parent company	A
Fair value of NCI at acquisition date	B
	A + B
Identifiable net assets of the subsidiary at the acquisition date (at fair value)	(C)
Total goodwill (parent and NCI)	A + B - C

After the acquisition date, the fair value formula is no longer applied. NCI is valued in the consolidated statement of financial position at:

	\$
Proportionate share of identifiable net assets of subsidiary	X
Goodwill attributable to NCI (= goodwill as at acquisition date less any subsequent impairment)	Y
	<u>X – Y</u>



Example

Hedd acquired 80% of the shares of Stove on 1 May Year 2 at a price of \$8 per share. A summary statement of financial position of Stove at this date is as follows:

Stove	\$
Statement of financial position at 1 May Year 2	
Total assets	<u>650,000</u>
Equity	
Ordinary shares of \$1 each	100,000
Retained earnings	<u>500,000</u>
	600,000
Liabilities	<u>50,000</u>
Equity plus liabilities	<u>650,000</u>

It has been estimated that the goodwill attributable to the non-controlling interests in Stove at this date was \$45,000.

For the purpose of preparing a consolidated statement of financial position, goodwill and the non-controlling interests should be valued as follows.

- Net assets of subsidiary at acquisition date = $$(650,000 - 50,000) = \$600,000$
- Fair value of parent company share = $80\% \times \$600,000 = \$480,000$
- Amount attributable to NCI = $20\% \times \$600,000 = \$120,000$
- Fair value of NCI at acquisition date = $\$120,000 + \text{attributable goodwill } \$45,000 = \$165,000$.

	\$
Purchase consideration paid by the parent company (80,000 shares \times \$8)	640,000
Fair value of parent company share of net assets	<u>480,000</u>
Purchased goodwill attributable to parent	<u>160,000</u>
	\$
Purchased goodwill attributable to parent	160,000
Goodwill attributable to NCI	<u>45,000</u>
Total goodwill in consolidated statement of financial position	<u>205,000</u>

Alternatively, total goodwill could be calculated as follows:

	\$
Purchase consideration paid by the parent company	640,000
Fair value of NCI at acquisition date (120,000 + 45,000)	165,000
	805,000
Net assets of the subsidiary at the acquisition date (at fair value)	(600,000)
Total goodwill (parent and NCI)	205,000

At the acquisition date, the NCI is valued at \$165,000. Subsequently, the value of NCI in the consolidated statement of financial position should be the proportionate share of the NCI in the net assets of the subsidiary, plus the goodwill of \$45,000 less any accumulated impairment of this goodwill.

How is the goodwill attributable to NCI calculated?

For the purpose of your examination, if you are asked to prepare a consolidated statement of financial position using the fair value method for NCI, the goodwill attributable to the NCI will be identifiable in one of the following three ways.

- The exam question might state the value of the goodwill attributable to the NCI.
- The exam question might state that the fair value of the NCI at the acquisition date was \$X. The value of attributable goodwill can then be calculated as the difference between total fair value (\$X) and the proportionate share of the NCI in the net assets of the subsidiary at the acquisition date.
- The exam question might give the market value of the shares in the subsidiary before its acquisition. The fair value of the NCI can then be estimated as the number of shares held by the NCI multiplied by the pre-acquisition price per share. Having established the total fair value of the NCI, the attributable goodwill is calculated by subtracting the proportionate share of the NCI in the net assets of the subsidiary at the acquisition date (same as the method above).



Example

Stott has 1 million shares of \$1 each in issue. Hott acquired 75% of these shares at a price of \$10 per share. Prior to the acquisition, the shares of Stott had been trading in the stock market at \$9 per share. The fair value of the net assets of Stott at the acquisition date was \$8 million.

Total goodwill and the value of the NCI at the acquisition date can be calculated as follows:

	\$
Purchase consideration paid by the parent company (750,000 shares × \$10)	7,500,000
Fair value of parent company share of net assets (75% × \$8 million)	6,000,000
Purchased goodwill attributable to parent	1,500,000

	\$
Fair value of NCI at acquisition date (250,000 × \$9)	2,250,000
NCI share of net assets at this date (25% × \$8 million)	2,000,000
Purchased goodwill attributable to NCI	250,000

	\$
Purchased goodwill attributable to parent	1,500,000
Goodwill attributable to NCI	250,000
Total goodwill in consolidated statement of financial position	1,750,000

Alternatively, total goodwill could be calculated as follows:

	\$
Purchase consideration paid by the parent company	7,500,000
Fair value of NCI at acquisition date	2,250,000
	9,750,000
Net assets of the subsidiary at the acquisition date (at fair value)	(8,000,000)
Total goodwill (parent and NCI)	1,750,000

At the acquisition date, the NCI is valued at \$2,250,000, which includes goodwill of \$250,000.

As stated earlier, after the acquisition date, the fair value formula is no longer applied. The NCI of Stott will be valued in the consolidated statement of financial position at:

	\$
Proportionate share of identifiable net assets of subsidiary	X
Goodwill attributable to NCI as at acquisition date	250,000
Accumulated impairment of goodwill after that date	Y
	X + 250,000 – Y

Impairment of goodwill after acquisition: fair value method of measuring NCI

When non-controlling interests are valued by the fair value method, any impairment in the total goodwill after acquisition should be shared between the parent company shareholders and the NCI.



Example

Start has 10 million shares of \$1 each in issue. Hart acquired 80% of these shares at a price of \$19.5 million when the net assets of Start were \$20 million. Prior to the acquisition, the shares of Stott had been trading in the stock market at \$2.25 per share.

	\$
Purchase consideration paid by the parent company	19,500,000
Fair value of parent company share of net assets (80% × \$20 million)	16,000,000
Purchased goodwill attributable to parent	3,500,000
\$	
Fair value of NCI at acquisition date (2,000,000 × \$2.25)	4,500,000
NCI share of net assets at this date (20% × \$20 million)	4,000,000
Purchased goodwill attributable to NCI	500,000

Total goodwill = \$3,500,000 + \$500,000 = \$4,000,000.

Suppose that subsequently goodwill is impaired in value by \$3 million, so that it is now valued at just \$1,000,000.

The impairment in the goodwill may be attributed proportionally to the parent company and the NCI

	Total	Attributable to parent	Attributable to NCI
	\$	\$	\$
Original goodwill	4,000,000	3,500,000	500,000
Impairment	(3,000,000)	(2,625,000)	(375,000)
Revised value	1,000,000	875,000	125,000

Consolidated statement of comprehensive income

- IAS 1 requirement for a consolidated statement of comprehensive income
- Consolidated income statement: the basic rules
- Pre- and post-acquisition profits
- Non-controlling interest in the consolidated income statement
- Impairment of goodwill and consolidated profit
- Fair value adjustments
- Accounting for deferred consideration

6 Consolidated statement of comprehensive income

6.1 IAS1 requirement for a consolidated statement of comprehensive income

IAS1 requires consolidated financial statements to include either:

- a single statement of comprehensive income, or
- two statements: (1) a consolidated income statement that reports the components of profit or loss, and (2) a consolidated statement of comprehensive income that begins with profit after tax and then shows the other components of comprehensive income.

This is the same requirement as for single entities.

In addition, in consolidated financial statements, there must also be disclosure of:

- (1) the profit or loss for the period attributable to:
 - owners of the parent company, and
 - non-controlling interests.
- (2) total comprehensive income for the period attributable to:
 - owners of the parent company, and
 - non-controlling interests.

When there are two separate statements, item (1) should be disclosed in the consolidated income statement and item (2) should be disclosed in the statement of comprehensive income.

The main problems with preparing a consolidated statement of comprehensive income relate to reporting profit or loss for the period, and this section therefore focuses on profit or loss items. For convenience, this will be referred to as the 'consolidated income statement'.

6.2 Consolidated income statement: the basic rules

A consolidated income statement brings together the sales revenue, income and expenses of the parent and the sales revenue, income and expenses of its subsidiaries.

The basic principle can be illustrated with a simple example. In the example below, the subsidiary is 100% owned by the parent, and the acquisition did not occur in the current year.



Example

Entity P owns 100% of the equity capital of Entity S, and has owned the shares for several years. In the year just ended, the income statement of each entity was as follows.

	Entity P	Entity S
	\$	\$
Revenue	500,000	250,000
Cost of sales	<u>(200,000)</u>	<u>(80,000)</u>
Gross profit	300,000	170,000
Other income	25,000	6,000
Distribution costs	(70,000)	(60,000)
Administrative expenses	(90,000)	(50,000)
Other expenses	(30,000)	(18,000)
Finance costs	<u>(15,000)</u>	<u>(8,000)</u>
Profit before tax	120,000	40,000
Income tax expense	<u>(45,000)</u>	<u>(16,000)</u>
Profit for the period	<u>75,000</u>	<u>24,000</u>

In this situation, the figures for the parent and subsidiary are added together to produce the consolidated income statement.

P Group

Consolidated income statement for the year

	\$
Revenue (500,000 + 250,000)	750,000
Cost of sales (200,000 + 80,000)	<u>(280,000)</u>
Gross profit	470,000
Other income (25,000 + 6,000)	31,000
Distribution costs (70,000 + 60,000)	(130,000)
Administrative expenses (90,000 + 50,000)	(140,000)
Other expenses (30,000 + 18,000)	(48,000)
Finance costs (15,000 + 8,000)	<u>(23,000)</u>
Profit before tax	160,000
Income tax expense (45,000 + 16,000)	<u>(61,000)</u>
Profit for the period	<u>99,000</u>

6.3 Pre- and post-acquisition profits

When a parent acquires a subsidiary **during** a financial year, the profits of the subsidiary have to be divided into pre-acquisition and post-acquisition profits.

- The pre-acquisition profit is used to calculate the goodwill.
- The post-acquisition profit (or loss) is included in the consolidated profit for the year.

Unless you are given information that suggests an alternative assumption is appropriate, you should assume that in the year of acquisition, the profits of the subsidiary occur at an even rate throughout the course of the year. The division of the annual profit of the subsidiary into pre-acquisition and post-acquisition elements can be done on a time basis.



Example

Entity P acquired 100% of the equity shares of Entity S at a cost of \$750,000 on 1 October Year 2, when the net assets of Entity S were \$600,000. Entity P prepares its financial statements to 31 December each year. The income statement for each entity for the year to 31 December Year 2 was as follows.

	Entity P	Entity S
	\$	\$
Revenue	400,000	260,000
Cost of sales	<u>(200,000)</u>	<u>(60,000)</u>
Gross profit	200,000	200,000
Other income	20,000	-
Distribution costs	(50,000)	(30,000)
Administrative expenses	(60,000)	(80,000)
Other expenses	(20,000)	(10,000)
Finance costs	<u>(10,000)</u>	<u>(5,000)</u>
Profit before tax	80,000	75,000
Income tax expense	<u>(30,000)</u>	<u>(15,000)</u>
Profit for the period	<u>50,000</u>	<u>60,000</u>

Required

Prepare a consolidated income statement for the year to 31 December Year 2, assuming there is no impairment of goodwill during the year.



Answer

The acquisition date was 1 October. This means that 9/12 or 75% of the subsidiary's profit for the year is pre-acquisition profit and 3/12 or 25% is post-acquisition profit.

The post-acquisition profit of the subsidiary for the year is therefore $3/12 \times \$60,000 = \$15,000$.

	Entity P	Entity S (25%)	Consolidated
	\$	\$	\$
Revenue	400,000	65,000	465,000
Cost of sales	(200,000)	(15,000)	(215,000)
Gross profit	200,000	50,000	250,000
Other income	20,000	–	20,000
Distribution costs	(50,000)	(7,500)	(57,500)
Administrative expenses	(60,000)	(20,000)	(80,000)
Other expenses	(20,000)	(2,500)	(22,500)
Finance costs	(10,000)	(1,250)	(11,250)
Profit before tax	80,000	18,750	98,750
Income tax expense	(30,000)	(3,750)	(33,750)
Profit for the period	50,000	15,000	65,000

6.4 Non-controlling interest in the consolidated income statement

When there is a non-controlling interest (minority interest) in a subsidiary, the consolidated income statement should show:

- the post-acquisition profit for the year for the group as a whole, including all the post-acquisition profit of the subsidiary, and
- the amount of this total profit that is attributable to the parent's equity shareholders and the amount that is attributable to the non-controlling interest in the subsidiary.

For the purpose of preparing the **consolidated income statement**, **all the pre-acquisition profits of the subsidiary are excluded**. When the financial statements include a separate consolidated income statement, the final lines of the consolidated income statement should therefore be as follows:

Profit for the period	<u>X</u>
Attributable to:	
Owners of the parent	Y
Non-controlling interest	<u>Z</u>
	<u>Y + Z = X</u>



Example

Entity P acquired 300,000 shares in Entity S on 1 August Year 2. The total net assets of Entity S at 1 January Year 2 were \$1,310,000.

The statement of financial position of entity S at 31 December Year 2 was as follows:

Entity S

Statement of financial position as at 31 December Year 2

	\$000
Property, plant and machinery	1,200
Current assets	550
	<u>1,750</u>
Equity and liabilities	
Equity shares of \$1 each	500
Share premium	300
Retained earnings	600
	<u>1,400</u>
Liabilities	350
	<u>1,750</u>

There has been no dividend payment by S in the year. The profit after tax of Entity P for the year was \$250,000. There has been no impairment of goodwill.

Required

Calculate the consolidated profit for the year to 31 December Year 2, and the allocation of this profit between the equity holders of the parent and the non-controlling interest in S.

a

Answer

Step 1. Establish the percentage share in the subsidiary of the parent P and the non-controlling interest.

	%
Parent share: $(300,000/500,000) \times 100\%$	60
Non-controlling interest: $(200,000/500,000) \times 100\%$	40
	<u>100</u>

Step 2. Establish the post-acquisition profit of the subsidiary.

Since there has been no dividend payment, the annual profit for the subsidiary can be calculated as the difference between the net assets of Entity S at the end of the year and the net assets at the beginning of the year.

	\$
Net assets of subsidiary at 31 December Year 2 (1,750 – 350)	1,400,000
Net assets of subsidiary at 1 January Year 2	1,310,000
	<u>90,000</u>
Post-acquisition profit (5 months, therefore $5/12 \times \$90,000$)	37,500

Step 3. Allocate the subsidiary's post-acquisition profit between the parent's equity shareholders and the non-controlling interest in Entity S.

	\$
Post-acquisition profit (5 months, therefore $5/12 \times \$90,000$)	37,500
Parent P share: $60\% \times \$37,500$	22,500
Non-controlling interest: $40\% \times \$37,500$	15,000

Step 4. Calculate the profit for the year for the group as a whole, and separate into the parent's share and the non-controlling interest.

	\$
Profit for the year of Entity P	250,000
Post-acquisition profit of subsidiary S	37,500
Consolidated profit for the year	287,500
Attributable to:	
Owners of the parent ($250,000 + 22,500$)	272,500
Non-controlling interest	15,000
	287,500

6.5 Impairment of goodwill and consolidated profit

There may be other adjustments to the consolidated profit or loss for the year. One such adjustment is impairment to goodwill. When purchased goodwill is impaired, the impairment does not affect the individual financial statements of the parent company or the subsidiary. The effect of the impairment applies exclusively to the consolidated statement of financial position and the consolidated income statement.

If goodwill is impaired:

- it is written down in value in the consolidated statement of financial position, and
- the amount of the write-down is charged as an expense in the consolidated income statement (normally in administrative expenses).

When non-controlling interests are valued at their proportionate share of the net assets of the subsidiary, a write-down in goodwill affects the parent entity only, not the non-controlling interest. It should therefore be deducted from the profit attributable to the owners of the parent.



Example

Assume that the same situation applies as in the previous example, with the following additional information:

- The purchase cost of the 300,000 shares in the subsidiary was \$900,000.

- At 31 December Year 2, it is assessed that there has been impairment of goodwill, and the value of the goodwill is now just \$70,000.

The goodwill at acquisition can be calculated on the assumption that the profit of the subsidiary in Year 2 (\$90,000 in total) accrued at an even rate through the year.

	\$
Net assets of the subsidiary at 31 December Year 2	1,400,000
Minus post-acquisition profit (see above)	<u>(37,500)</u>
Net assets of the subsidiary at acquisition date	<u>1,362,500</u>
Parent's share (60%)	817,500
Cost of acquisition	<u>900,000</u>
Goodwill at acquisition	<u>82,500</u>
	\$
Goodwill at acquisition (1 August Year 2)	82,500
Goodwill at 31 December Year 2	<u>70,000</u>
Impairment in the year	<u>12,500</u>

The summarised consolidated income statement for the P Group for the year to 31 December Year 2 will be:

	\$
Profit for the year of entity P	250,000
Post-acquisition profit of subsidiary S	37,500
Impairment of goodwill	<u>(12,500)</u>
Profit for the year	<u>275,000</u>
Attributable to:	
Owners of the parent (250,000 + 22,500 – 12,500)	260,000
Non-controlling interest	<u>15,000</u>
	<u>275,000</u>

Note

When non-controlling interests are valued using the fair value method, a write-down in goodwill affects both the parent entity and the non-controlling interests. The impairment reduces total consolidated profit for the period, and this impairment loss can be apportioned between profit attributable to the owners of the parent and profit attributable to the NCI.

6.6 Fair value adjustments

If assets of the subsidiary are re-valued adjusted to their fair values, this will affect the consolidated statement of comprehensive income.

- If a non-current asset is revalued upwards, the depreciation expense is increased from the time of the revaluation.
- The gain on revaluation is included in other comprehensive income for the period, in the consolidated statement of comprehensive income. This gain can be divided between the non-controlling interest and the interest of the owners of the parent company.
- The total comprehensive income for the year will include the gain on revaluation, which must be analysed between the income attributable to owners of the parent and the income attributable to the non-controlling interest.



Example

Entity P acquired 80% of the shares of Entity S on 1 January Year 1.

At 1 January Year 1 the fair values of S's plant and equipment exceeded their book value by \$200,000. They had a remaining useful life of 5 years at this date.

At 31 December Year 1, some property of Entity S was revalued upwards by \$600,000. The rate of tax is 25%.

S also had a long-term loan of \$500,000 which was repayable on 31 December Year 5. The loan is interest free, but the interest rate on a similar borrowing would be 10%.

The book values of the other assets and liabilities of S were approximately equal to their fair values at 1 January Year 1.

Several adjustments are made to the consolidated statement of comprehensive income for Year 1:

- Property, plant and equipment increases by \$200,000 at the acquisition date for items that have a remaining useful life of 5 years. Assuming straight-line depreciation, there is an additional depreciation expense of \$40,000 ($200,000/5$) in Year 1. This is included either in cost of sales or in administrative expenses for Entity S, depending on the nature of the assets that have been revalued, and will also be included in the consolidated profit or loss for the year.
- At 1 January Year 1 the long-term loan is discounted to \$310,500 ($500,000 \times 0.621$). At 31 December Year 1 the long-term loan is discounted to \$341,500 ($500,000 \times 0.683$). During Year 1 the discount unwinds by \$31,000 ($341,500 - 310,500$). Therefore there is an additional finance cost of \$31,000 in the reported profit or loss of Entity S, which represents the amount by which present value of the loan has increased during the year. This will also be included in the consolidated profit or loss for the year.
- The revaluation gain is \$600,000 and the related tax is \$150,000. The revaluation reserve of Entity S is increased by \$450,000. The after-tax gain of \$450,000 is included in other comprehensive income for the year (for both Entity S and in

the consolidated statement of comprehensive income.). In the consolidated accounts, 80% of this income (\$360,000) is attributable to owners of the parent and 20% (\$90,000) is attributable to the non-controlling interests.

6.7 Accounting for deferred consideration

Whenever some of the consideration for an acquisition is deferred by more than one year, it should be valued at present value at the date of acquisition. The present value of deferred consideration is the amount payable in the future, discounted at the company's cost of capital.

- In calculating the purchase consideration, the deferred consideration should be taken at its present value, not the actual future amount payable.
- In each subsequent year, there is a finance charge for the deferred acquisition, which is included in finance costs in the consolidated income statement.
- This finance charge is added to the deferred consideration, which is a liability in the consolidated statement of financial position.
- The finance charge is the accumulated balance of the deferred consideration at the beginning of the year multiplied by the cost of capital.



Example

Hole acquired 80% of the shares of Sole on 1 July Year 5 when the net assets of Sole were \$16 million. The purchase consideration was an immediate payment of \$14 million plus a further \$3.63 million payable two years after the acquisition.

The company's cost of capital is 10%. Its financial year ends on 30 June.

The parent company's attributable goodwill is calculated as follows:

	\$
Immediate payment	14,000,000
Deferred payment: present value = \$3.63 million \times $1/(1.10)^2$	3,000,000
	17,000,000
Net assets acquired = 80% \times \$16 million	12,800,000
Goodwill attributable to parent	4,200,000

At the acquisition date, the consolidated statement of financial position includes a liability for the deferred consideration of \$3,000,000.

Year to 30 June Year 6

Finance charge (consolidated income statement) = 10% \times \$3,000,000 = \$300,000.

Total deferred consideration at 30 June Year 5 = \$3,000,000 + \$300,000 = \$3,300,000.

This is a liability in the consolidated statement of financial position.

Year to 30 June Year 7

Finance charge (consolidated income statement) = 10% \times \$3,300,000 = \$330,000.

Total deferred consideration at 30 June Year 6, before the payment is actually made = \$3,300,000 + \$330,000 = \$3,630,000 (= amount actually payable).

Consolidated accounts: intra-group adjustments

Contents

- 1 Intra-group transactions
- 2 Intra-group sales and intra-group balances
- 3 Unrealised profit in inventory
- 4 Transfers of non-current assets
- 5 Intra-group loans and interest
- 6 Intra-group dividends

Intra-group transactions

- Types of intra-group transaction
- The need to eliminate intra-group transactions on consolidation

1 Intra-group transactions

1.1 Types of intra-group transaction

In many groups, business and financial transactions take place between entities within the group. These 'intra-group' transactions might be:

- the sale of goods or services between the parent and a subsidiary, or between two subsidiaries in the group
- transfers of non-current assets between the parent and a subsidiary, or between two subsidiaries in the group
- the payment of dividends by a subsidiary to the parent (or by one subsidiary to another subsidiary)
- loans by one entity in the group to another, and the payment of interest on intra-group loans.

1.2 The need to eliminate intra-group transactions on consolidation

Intra-group transactions should be eliminated on consolidation. In other words, the effects of intra-group transactions must be removed from the financial statements on consolidation.

The purpose of consolidated accounts is to show the financial position and the financial performance of the group as a whole, as if it is a single operating unit. If intra-group transactions are included in the consolidated financial statements, the statements will show too many assets, liabilities, income and expenses for the group as a single operating unit.

IAS27 therefore states:

- Intra-group balances and transactions, including income, expenses and dividends, must be eliminated in full.
- Profits or losses resulting from intra-group transactions that are recognised in inventory or non-current assets must be eliminated in full.



Example

Suppose that a parent P lends \$50,000 to its subsidiary S.

- In the statement of financial position of P, there will be a non-current asset of \$50,000.
- In the statement of financial position of the subsidiary S, there will be a long-term liability of \$50,000 for the loan.

If the consolidated statement of financial position is prepared by adding all the assets of the group and all the liabilities of the group, the total assets will include the \$50,000 loan (of P) and the total liabilities will also include the \$50,000 loan (of S).

However, looking at the group as a whole, the loan is an internal loan that does not affect the assets of the group of companies as a unit. The consolidated statement of financial position should therefore exclude the \$50,000 from both assets and liabilities.

Adjustments should be made for several types of intra-group transaction:

- to eliminate any element of double-counting, and also
- to eliminate any credit for profit (on intra-group sales) that has not yet been realised by a sale outside the group.

Intra-group sales and intra-group balances

- Intra-group sales
- Intra-group balances
- Intra-group balances: items in transit

2 Intra-group sales and intra-group balances

2.1 Intra-group sales

The consolidated statement of comprehensive income shows the total sales and the total cost of sales for the group as a whole during a financial period.

If entities within the same group sell goods or services to each other, these intra-group transactions will be included:

- in the revenue of the entity making the sale
- as a cost of sale of the entity making the purchase.

Looking at the group as a single operating unit, however, there has been no sale and no purchase. The intra-group sale, for the group as a unit, is simply a transfer of goods or services within the group.

The revenue from intra-group sales and the cost of intra-group purchases must therefore be eliminated from the consolidated profit or loss for the year.

No inventories of intra-group sales items

Provided that the items sold and bought internally have been used to make a sale outside the group, so that there are no inventories of intra-group sales items, the adjustment is made **in consolidated profit or loss** by:

- deducting the revenue from intra-group sales from the total revenue for the group, and
- deducting the **same amount** from the cost of sales.



Example

A parent company and its subsidiary had the following revenue and cost of sales in the year just ended. The parent has owned the subsidiary for several years.

	Parent P	Subsidiary S
	\$000	\$000
Revenue	500	300
Cost of sales	200	200
Gross profit	300	100

Included in these figures are sales of \$50,000 by subsidiary S to parent P. The cost of these sales for subsidiary P was \$30,000. P has used all the items bought from S to make sales outside the group.

The revenue of subsidiary S includes \$50,000 of sales within the group to P. The cost of sales of P includes \$50,000 for the items bought from S. The total profit of the group is unaffected, but the double-counting in revenue and the cost of sales must be eliminated.

The figures for the consolidated statement of comprehensive income are calculated as follows

	Parent P	Subsidiary S	Adjust for intra-group sales	Consolidated profit
	\$000	\$000	\$000	\$000
Revenue	500	300	- 50	750
Cost of sales	<u>200</u>	<u>200</u>	<u>- 50</u>	<u>350</u>
Gross profit	<u>300</u>	<u>100</u>	<u>no change</u>	<u>400</u>

The gross profit of the group is unaffected, because all the intra-group items have been sold outside the group. However the group revenue and the group cost of sales must exclude the intra-group transactions.

When there are inventories of intra-group sales items

A different situation arises when, at the end of the financial year, some intra-group sales items are still held as inventory by the group entity that bought them. This is because the inventory includes some 'unrealised profit'. This problem is explained later.

2.2 Intra-group balances

When entities within a group sell goods to other entities in the same group, the terms of trading are normally similar to those for sales to external customers. The selling group company will expect payment in cash for the goods sold, but will give credit terms to the buying group company.

When this happens, group entities will include other group entities within their trade receivables (for intra-group sales) and trade payables (for intra-group purchases).

The trade receivables of the selling group entity should equal the trade payables of the buying group entity. These 'intra-group balances' or 'inter-entity balances' must be eliminated on consolidation and excluded from the consolidated statement of financial position.

For example, if subsidiary S sells goods to parent P for \$6,000 and P has not paid for the goods as at the end of the financial year, the statement of financial position of parent P will have a payable for \$6,000 and subsidiary S will have a trade receivable for \$6,000. These intra-group balances should be eliminated, and neither of them should appear in the consolidated statement of financial position.



Example

The statements of financial position of Entity P and Entity S at 31 December Year 2 are as follows. Entity P owns 90% of the shares of Entity S.

	Parent P	Subsidiary S
Assets	\$	\$
Property, plant and equipment	400,000	250,000
Investment in S	200,000	-
Current assets		
Receivables balance from S	25,000	-
Other current assets	125,000	200,000
Total assets	<u>750,000</u>	<u>450,000</u>
Equity and liabilities		
Share capital: equity shares of \$1 each	100,000	50,000
Retained earnings	600,000	300,000
	<u>700,000</u>	<u>350,000</u>
Liabilities		
Payables balance with P	-	25,000
Other liabilities	50,000	75,000
Total equity and liabilities	<u>750,000</u>	<u>450,000</u>

The shares in subsidiary S were acquired when the net assets of S were \$150,000 (represented by share capital of \$50,000 and retained earnings of \$100,000).

The accounting policy of Entity P is to value non-controlling interests in S at a proportionate amount of the net identifiable assets of the subsidiary. There has been no impairment in goodwill since acquisition.

The parent and subsidiary trade with each other: the parent sells goods to the subsidiary. At the end of the reporting period (31 December Year 2), the subsidiary owed \$25,000 to the parent.

However, the subsidiary held no inventory of items bought from the parent.

Required: Prepare a consolidated statement of financial position.



Answer

	\$
Net assets in S acquired (= 90% × \$150,000)	135,000
Cost of the investment in S	200,000
Purchased goodwill	<u>65,000</u>

	\$
Retained earnings of S at 31 December Year 2	300,000
Pre-acquisition retained earnings of S	<u>100,000</u>
Retained post-acquisition profits of S	<u>200,000</u>
Parent's share of retained post-acquisition profits of S (90%)	\$180,000

The receivable of \$25,000 from S in the statement of financial position of P is the payable of \$25,000 in the statement of financial position of S. These items should be cancelled out, and must not appear in the consolidated statement of financial position.

The non-controlling interest in S should be calculated as a percentage of the net assets of S, including the debt payable to P.

Non-controlling interests	\$
Total assets of S	450,000
Liabilities of S (25,000 + 75,000)	<u>(100,000)</u>
Net assets of S at 31 December Year 2**	<u>350,000</u>
(** = share capital plus reserves)	
Non-controlling interests (10%)	<u>\$35,000</u>

The consolidated statement of financial position can now be prepared.

P Group

Consolidated statement of financial position at 31 December Year 2

Assets	\$
Property, plant and equipment (400,000 + 250,000)	650,000
Goodwill	65,000
Current assets (125,000 + 200,000)	<u>325,000</u>
Total assets	<u>1,040,000</u>
Equity and liabilities	
Equity attributable to owners of the parent	
Share capital: equity shares \$1	100,000
Retained earnings (600,000 + 180,000)	<u>780,000</u>
	880,000
Non-controlling interests	<u>35,000</u>
Total equity	915,000
Liabilities (50,000 + 75,000)	<u>125,000</u>
Total equity and liabilities	<u>1,040,000</u>

2.3 Intra-group balances: items in transit

At the year-end, there might be a difference in the intra-group balances due to goods in transit or cash in transit. When cash or goods are in transit, they are in the process of being transferred from one group entity to another. The entity sending the cash or goods will have recorded the transaction in its ledger accounts. However, the entity receiving the cash or goods has not yet received anything, and so has not yet recorded the transaction in its accounts.

Goods in transit

One group entity might have sent goods to another entity in the group. The entity making the sale will therefore have recorded the sale, the cost of goods sold and a profit. It will also have reduced its inventory and recorded a trade receivable. If the goods are in transit, the entity making the purchase will not yet have recorded the purchase, the inventory received or the trade payable in its ledger accounts.

Cash in transit

One group entity owing money to another group entity might have made a payment and recorded the payment in its accounts, by crediting cash and debiting the trade payable. However, the other group entity might not yet have received the payment, and so will not have recorded the cash received or the reduction in its total trade receivables.

Differences in the intra-group balances caused by items in transit must be removed for the purpose of consolidation.

Adjusting for items in transit

When the transaction is between a parent and a subsidiary, the difference will be due to goods or cash in transit either from the parent to the subsidiary or from the subsidiary to the parent. **The adjustment should be made in the accounts of the parent, regardless of the direction of the transfer.**

For example:

- If cash is in transit from the parent to a subsidiary, the following adjustment should be made to the statement of financial position of the parent:
 - Debit: Cash (= increase cash in the parent's statement of financial position)
 - Credit: Amount payable to the subsidiary (= increase the total amount payable to the subsidiary)

The parent therefore reverses the transaction for the cash in transit, as though the payment has not yet been made.

- If cash is in transit from a subsidiary to the parent, in the statement of financial position of the parent:
 - Debit: Cash (= increase cash in the parent's statement of financial position).
 - Credit: Amount receivable from the subsidiary (= reduce the total amount owed to the parent as trade receivables from the subsidiary).

The parent therefore records the receipt of the cash payment from the subsidiary, even though the cash has not yet been received.

Having made the adjustment for the item in transit, the normal rules can then be applied to prepare the consolidated financial statements.



Example

The statements of financial position of a Parent and its Subsidiary at 31 December Year 6 are as follows.

	Parent	Subsidiary
Assets	\$	\$
Property, plant and equipment	300,000	370,000
Investment in Subsidiary	220,000	-
Current assets		
Receivables: Balance on the account with Parent	-	30,000
Other current assets	60,000	40,000
Total assets	<u>580,000</u>	<u>440,000</u>
Equity and liabilities		
Share capital: equity shares \$1	180,000	100,000
Retained earnings	312,000	290,000
	<u>492,000</u>	<u>390,000</u>
Liabilities		
Payables: Balance on account with Subsidiary	18,000	-
Other liabilities	70,000	50,000
Total equity and liabilities	<u>580,000</u>	<u>440,000</u>

Parent acquired 75% of the equity shares of Subsidiary some years ago, when the net assets of Subsidiary were \$240,000.

The difference in the intra-group balances is due to a cash payment by Parent to Subsidiary, which has been recorded in the accounts of Parent but has not yet been recorded in the accounts of Subsidiary.

The accounting policy of Parent is to value non-controlling interests in Subsidiary at a proportionate amount of net identifiable assets. There has been no impairment in goodwill since the acquisition of Subsidiary.

Required

Prepare a consolidated statement of financial position as at 31 December Year 6.

a**Answer****First, eliminate intra-group balances.**

The cash in transit is \$12,000 (\$30,000 – \$18,000). Adjust for the cash in transit in the statement of financial position of Parent as follows:

- Debit: Cash \$12,000
- Credit: Payables: Balance on account with Subsidiary \$12,000.

The intra-group balances (in the statements of financial position of Parent and Subsidiary) are now both \$30,000 and are eliminated on consolidation.

The current assets of Parent increase by \$12,000 (cash) from \$60,000 to \$72,000.

Having eliminated the intra-group balances, carry out the normal five steps for preparing a consolidated statement of financial position.

Step 1. Calculate the group share (parent company share) and the NCI share of the equity of Subsidiary.

	%
Parent's share	75
Non-controlling interest	25
	<u>100</u>

Step 2. Calculate the net assets of S at acquisition and at the end of the reporting period.

	At end of reporting period	At acquisition	Post acquisition
	\$		
Equity shares	100,000	100,000	-
Retained earnings	290,000	140,000	150,000
	<u>390,000</u>	<u>240,000</u>	

Step 3. Calculate the goodwill.

	\$
Cost of the acquisition	220,000
Parent's share of subsidiary's net assets at acquisition (75% (Step 1) × \$240,000 (Step 2))	180,000
Goodwill	<u>40,000</u>

Step 4. Calculate the non-controlling interest.

Non-controlling interest share of net assets of the subsidiary at the end of the reporting period

$$= 25\% (\text{Step 1}) \times \$390,000 (\text{Step 2}) = \mathbf{\$97,500}.$$

Step 5. Calculate consolidated retained earnings.

	\$
Parent's retained earnings	312,000
Parent's share of subsidiary's post-acquisition profits (= 75% (Step 1) × \$150,000 (Step 2))	112,500
Consolidated retained earnings	424,500

Consolidated statement of financial position

The consolidated statement of financial position is prepared as follows.

Parent Group**Consolidated statement of financial position at 31 December Year 6**

Assets	\$
Property, plant and equipment (300,000 + 370,000)	670,000
Goodwill (Step 3)	40,000
	710,000
Current assets (60,000 + 12,000 cash in transit + 40,000)	112,000
Total assets	822,000
Equity and liabilities	
Equity attributable to owners of the parent	
Share capital: equity shares \$1	180,000
Retained earnings (Step 5)	424,500
	604,500
Non-controlling interests (Step 4)	97,500
Total equity	702,000
Liabilities (70,000 + 50,000)	120,000
Total equity and liabilities	822,000

Unrealised profit in inventory

- The nature of the problem
- Unrealised profit: 100%-owned subsidiary
- Unrealised profit: partly-owned subsidiary

3 Unrealised profit in inventory

3.1 The nature of the problem

When entities within a group trade with each other, the selling entity makes a profit on the goods that it sells. Provided that all the goods are eventually sold outside the group, the internal profit does not matter for consolidation, because the revenue of the selling entity is a cost of sale for the buying entity. The matching revenue and cost of sale are both deducted from consolidated revenue and cost of goods sold, as described earlier, and the gross profit on consolidation is not affected.

A different situation arises, however, when some of the inventory sold by one group entity to another group entity is still held as inventory by the buying entity at the end of the reporting period.

When intra-group sales are still held as inventory:

- the entity that made the sale has recorded a profit on the sale, but
- this profit is included within the inventory valuation of the entity that made the purchase, because inventory is valued at the purchase cost to the buying entity.

The inventory is still held within the group, so the group as a unit has not made an external sale. The profit made by the selling entity is included in the cost of the closing inventory of the buying entity. The profit on the sale of this inventory must be eliminated on consolidation. It is **unrealised profit**.

3.2 Unrealised profit: 100%-owned subsidiary

The following rules should be applied for a 100%-owned subsidiary.

Unrealised profit is eliminated from the **consolidated statement of financial position** by:

- reducing the consolidated retained earnings by the amount of the unrealised profit, and
- reducing the valuation of the inventory by the amount of the unrealised profit.

In the **consolidated statement of comprehensive income/income statement**:

- reduce consolidated **revenue** by the amount of the intra-group sales (= R)

- reduce the consolidated cost of goods sold by the intra group-sales (R) minus the amount of unrealised profit in the closing inventory (P).

	\$
Revenue from intra-group sales	R
Unrealised profit in closing inventory of intra-group sales	P
Reduction in consolidated cost of goods sold	(R – P)

This has the effect of reducing the consolidated profit for the year by the unrealised profit in the closing inventory. (This is because consolidated revenue is reduced by R and the cost of goods sold is reduced by a smaller amount, (R – P).)



Example

The revenue and cost of goods sold for a parent entity P and its 100%-owned subsidiary S are shown below, for the year to 31 December Year 6.

	P	S
	\$000	\$000
Revenue	750	500
Cost of goods sold	300	200
Gross profit	450	300

The subsidiary S made sales of \$100,000 to P during the year. Of these sales, \$30,000 is still held as inventory by P at the year-end. The mark-up on goods sold by S to P is 150% of cost.

Required

Calculate the revenue and cost of goods sold for the consolidated income statement.



Answer

The closing inventory of P that was purchased from S is carried in the accounts of P at \$30,000. However, the unrealised profit must be eliminated.

When unrealised profit is stated as a percentage mark-up on cost, it is calculated as:

$$\text{Unrealised profit} = \text{Sales value} \times \frac{\text{Mark - up \%}}{(\text{Mark - up \%} + 100\%)}$$

In this example, the unrealised profit in the inventory is:

$$\$30,000 \times \frac{150}{(150 + 100)} = \$18,000$$

Consolidated revenue is reduced by the total amount of intra-group sales, \$100,000.

The consolidated cost of goods sold is reduced by the total intra-group sales minus the unrealised profit in the inventory. It is therefore reduced by $\$100,000 - \$18,000 = \$82,000$.

P Group

Consolidated income statement for the year to 31 December Year 6

	\$000
Revenue (750 + 500 – 100)	1,150
Cost of goods sold (300 + 200 – 82)	418
Gross profit (450 + 300 – 18)	732

In the consolidated statement of financial position, the unrealised profit should be deducted from the inventory, and the inventory should be valued at $\$12,000 (= \$30,000 - \$18,000)$.

3.3 Unrealised profit: partly-owned subsidiary

When there is unrealised profit in closing inventory within a group, and the inventory has been sold or purchased by a partly-owned subsidiary, **the entire unrealised profit should be eliminated from the inventory value.**

If the goods have been sold by the parent (P) to the subsidiary (S) then the profit has been made in P's books and the group consolidated retained profits are charged with the amount of the unrealised profit in the same way as when S is a wholly-owned subsidiary.

However if S is not a wholly-owned subsidiary, i.e. there is a non-controlling interest, and S has sold the goods to P then normal practice is to charge the **non-controlling interest** with its share of the unrealised profit.

The approach to consolidation is illustrated by the following example.



Example

The statements of financial position of P and S at 31 December Year 7 are shown below.

	P	S
Assets	\$	\$
Property, plant and equipment	400,000	300,000
Investment in S	270,000	-
	<u>670,000</u>	<u>300,000</u>
Current assets		
Receivables: Balance on account with P	-	10,000
Other current assets	40,000	80,000
Total assets	<u>710,000</u>	<u>390,000</u>

Equity and liabilities		
Share capital: equity shares \$0.25	150,000	100,000
Retained earnings	490,000	270,000
	<u>640,000</u>	<u>370,000</u>
Liabilities		
Payables: Balance on account with S	10,000	-
Other liabilities	60,000	20,000
	<u>710,000</u>	<u>390,000</u>

P acquired 320,000 shares in S when the net assets of S were \$250,000. The accounting policy of P is to value non-controlling interests in S at a proportionate amount of net identifiable assets.

The valuation of goodwill at the beginning of the year was \$60,000 but an impairment review at the end of Year 7 has found that the goodwill is now worth only \$45,000.

During the year S sold goods to P at a standard mark-up of 50% on cost for \$160,000 and at the end of the year \$24,000 of this was still held as inventory by P.

The recorded revenue and profit after tax of P and S for the year to 31 December Year 7 were:

	P	S
	\$	\$
Revenue	600,000	480,000
Profit after tax	50,000	40,000

Required

- Prepare a consolidated statement of financial position as at 31 December Year 7.
- Calculate the revenue and the profit after tax for the year that will be reported in the consolidated statement of comprehensive income/consolidated income statement.

a

Answer

Step 1. Calculate the parent company share and the non-controlling interest share in the subsidiary, as a percentage.

The number of shares issued by S is \$100,000/\$0.25 per share = 400,000 shares.

	%
Parent's share: $(320,000/400,000) \times 100\%$	80
Non-controlling interest: $(80,000/400,000) \times 100\%$	<u>20</u>
	<u>100</u>

Step 2. Calculate the net assets of S at acquisition and at the end of the reporting period (31 December Year 7).

At this stage, make any fair value adjustments, or adjustments for unrealised profit. By adjusting for unrealised profit at this stage and charging it to the retained earnings of the subsidiary, we make sure that the non-controlling interests will bear their share (in Step 4) and the parent will bear its share (in Step 5).

	At 31 December Year 7	At acquisition	Post acquisition
	\$		
Equity shares	100,000	100,000	-
Retained earnings (= \$270,000 minus unrealised profit of \$8,000 (see working))	<u>262,000</u>	<u>150,000</u>	112,000
	<u>362,000</u>	<u>250,000</u>	

Working

The unrealised profit in the inventory is: $\$24,000 \times 50 / (50 + 100) = \$8,000$.

The inventory of S must be reduced from \$80,000 to \$72,000, to eliminate the unrealised profit.

Step 3. Calculate the goodwill at acquisition.

	\$
Cost of the acquisition	270,000
Parent's share of the subsidiary's net assets at acquisition (= 80% (Step 1) \times \$250,000 (Step 2))	<u>(200,000)</u>
Goodwill	70,000
Minus impairment to date	<u>(25,000)</u>
Balance carried forward	<u>45,000</u>

Step 4. Calculate the non-controlling interest.

Non-controlling interest share of net assets of the subsidiary at 31 December Year 7 (the end of the reporting period)

= 20% (Step 1) \times \$362,000 (Step 2) = **\$72,400**.

Step 5. Calculate consolidated retained earnings.

	\$
Parent's retained earnings	490,000
Parent's share of subsidiary's post-acquisition profits (80% (Step 1) \times \$112,000 (Step 2))	89,600
Minus impaired goodwill since acquisition (Step 3)	<u>(25,000)</u>
Consolidated retained earnings	<u>554,600</u>

Consolidated statement of financial position

The consolidated statement of financial position is now constructed as follows.

P Group

Consolidated statement of financial position at 31 December Year 7

Assets	\$
Property, plant and equipment (400,000 + 300,000)	700,000
Goodwill (Step 3)	<u>45,000</u>
	745,000
Current assets (40,000 + 72,000)	<u>112,000</u>
Total assets	<u>857,000</u>
Equity and liabilities	
Equity attributable to owners of the parent	
Share capital: equity shares \$1	150,000
Retained earnings (Step 5)	<u>554,600</u>
	704,600
Non-controlling interests (Step 4)	<u>72,400</u>
Total equity	777,000
Liabilities (60,000 + 20,000)	<u>80,000</u>
Total equity and liabilities	<u>857,000</u>

Consolidated revenue and consolidated profit for the year

The consolidated revenue excludes the intra-group sales of \$160,000.

P Group

Summary consolidated income statement for the year to 31 December Year 7

	\$
Revenue (600 + 480 – 160)	<u>920,000</u>
Profit of S	40,000
Unrealised profit in inventory	<u>(8,000)</u>
Profit of S minus inventory adjustment	<u>32,000</u>
Parent's share of S profit less inventory adjustment (80%)	25,600
Profit for the year of P	50,000
Goodwill impairment for the year (60,000 – 45,000)	<u>(15,000)</u>
Consolidated profit: parent's share	<u>60,600</u>

Non-controlling interest share in profit of subsidiary, less inventory adjustment:
 $20\% \times \$32,000 = \$6,400$.

Total consolidated profit for the year = \$60,600 + \$6,400 = \$67,000.

Check:

	\$
Profit of P	50,000
Profit of S	40,000
Eliminate unrealised profit	(8,000)
Goodwill impairment in the year	<u>(15,000)</u>
Total consolidated profit for the year	<u>67,000</u>

Transfers of non-current assets

- The nature of the problem
- Dealing with a transfer to or from a partly owned subsidiary

4 Transfers of non-current assets

4.1 The nature of the problem

A parent can sell a non-current asset to a subsidiary or vice-versa. This creates similar problems to intra-group sales of goods.



Example

P owns 100% of S. At the beginning of Year 1 P buys a machine for \$80,000 and immediately sells it to S for \$100,000. The group depreciates plant over five years using the straight line method. (Residual value = \$0.)

When the consolidated financial statements for Year 1 are prepared there are two problems:

- P has made a profit of \$20,000, but from the point of view of the group, this is unrealised.
- During Year 1, S has charged depreciation on the machine. This has been based on the machine's cost to S, not its original cost to the group.

Both the unrealised profit and the excess depreciation must be eliminated from the consolidated financial statements.

Step 1. Calculate the cost and accumulated depreciation on the machine: (a) as it is included in the statement of financial position of S at the end of Year 1; and (b) as it would have been included in the statement of financial position of P at the same date if the transfer had never occurred.

	In statement of financial position of S	In group statement of financial position	Difference
	\$	\$	\$
Cost	100,000	80,000	20,000
Accumulated depreciation (1/5 cost)	<u>(20,000)</u>	<u>(16,000)</u>	<u>(4,000)</u>
Net book value	<u>80,000</u>	<u>64,000</u>	<u>16,000</u>

Step 2. Adjust the consolidated statement of financial position

■ Unrealised profit

The cost of non-current assets is reduced from its transfer value to the original cost to the group.

Debit (= reduce) Consolidated retained earnings	\$20,000
Credit (= reduce) Non-current assets: Cost	\$20,000

■ Excess depreciation

The accumulated depreciation on the asset is reduced by the amount of the excess depreciation.

Debit (= reduce) Non-current assets: Accumulated depreciation \$4,000

Credit (= increase) Consolidated retained earnings \$4,000

These two adjustments have the effect of reducing the net book value of the machine to the amount at which it would have been stated had the transfer not occurred.

	In statement of financial position of S	Adjustment	Consolidated statement of financial position
	\$	\$	\$
Cost	100,000	20,000	80,000
Accumulated depreciation (1/5 cost)	(20,000)	(4,000)	(16,000)
Net book value	80,000	16,000	64,000

4.2 Dealing with a transfer to or from a partly-owned subsidiary

Where a non-current asset is transferred to or from a partly owned subsidiary, either the adjustment for unrealised profit or the adjustment to reverse the excess depreciation must be shared between the group (consolidated retained earnings) and the non-controlling interests.

Suppose that in the example above the facts are exactly as before, except that P now owns only 80% of S.

Transfer from parent to subsidiary

The parent has made the unrealised profit, so 100% of this adjustment goes to reduce (debit) consolidated retained earnings and the carrying value of the non-current asset, as before.

Debit Consolidated retained earnings \$20,000
Credit Non-current assets: Cost \$20,000

The subsidiary has suffered the excess depreciation, so this adjustment is shared between consolidated retained earnings and non-controlling interests.

Debit Non-current assets: Accumulated depreciation \$4,000
Credit Consolidated retained earnings (80%) \$3,200
Credit Non-controlling interests (20%) \$800

Transfer from subsidiary to parent

Here, the subsidiary has made the unrealised profit, so the adjustment is shared between consolidated retained earnings and non-controlling interests.

Debit	Consolidated retained earnings (80%)	\$16,000	
Debit	Minority interests (20%)	\$4,000	
Credit	Non-current assets: Cost		\$20,000

The parent has suffered the excess depreciation, so 100% of this adjustment goes to increase (credit) consolidated retained earnings.

Debit	Non-current assets: Accumulated depreciation	\$4,000	
Credit	Consolidated retained earnings		\$4,000

Intra-group loans and interest

- Intra-group loans
- Intra group interest
- Non-controlling interests and intra-group loans
- Preference shares in a subsidiary

5 Intra-group loans and interest

It is quite common for group entities to lend money to other group entities, and to charge interest on the loan.

5.1 Intra-group loans

If one group entity makes a loan to another group entity, the asset of the lender is matched by the liability of the borrower, and the asset and liability should both be eliminated on consolidation.

For example, if a parent lends \$100,000 to a subsidiary, the loan will be excluded from both long-term assets and long-term liabilities of the group on consolidation.

Any non-controlling interests in the subsidiary will be calculated by taking the loan into account as a liability when calculating the net assets of the subsidiary.

5.2 Intra-group interest

When one group entity makes a loan to another group entity, there may be accrued interest payable in the statement of financial position of the borrower at the year-end. This should be matched by interest receivable by the lender. The current liability (interest payable) and the current asset (interest receivable) should therefore be self-cancelling on consolidation, and both the asset and the liability should be excluded from the consolidated statement of financial position.

(**Note:** If one of the entities has failed to record the accrued interest in its accounts, you should correct this omission and record the transaction in the accounts of the entity where it is missing. Having recorded the missing transaction, you can then cancel the matching asset and liability.)

5.3 Non-controlling interests and intra-group loans

The non-controlling interest in the equity of a subsidiary and the subsidiary's profit for the year are calculated on the assumption that the non-controlling interest is the relevant proportion of:

- the subsidiary's net assets **including** the intra-group loan as an asset or liability, and
- the subsidiary's profit for the year **including** the interest as an expense or as income, depending on whether the subsidiary is the borrower or the lender.

5.4 Preference shares in a subsidiary

A subsidiary might have some preference shares in issue. If it does, the parent company might own some of them.

The method of accounting for preference shares in a subsidiary depends on whether the preference shares are treated as equity, as debt or as a combination of the two.

- If the **preference shares are treated as equity**, any shares that are not owned by the parent (or other group companies) are treated as a non-controlling interest.
- If the **preference shares are treated as debt**, the liability to the outside shareholders is treated as a **liability in the consolidated statement of financial position**, and preference dividends paid to the outside shareholders are a finance charge in the consolidated profit or loss for the period. To the extent that the preference shares are owned by the parent company, the investment of the parent and the liability of the subsidiary should be self-cancelling items.

Intra-group dividends

- Dividends paid by a subsidiary: 100%-owned subsidiary
- Dividends paid by a subsidiary: partly-owned subsidiary
- Dividends paid by a subsidiary out of pre-acquisition profits
- Dividends payable by a subsidiary and declared before the end of the financial year

6 Intra-group dividends

IAS10 states that if an entity declares a dividend for the financial year **after the reporting period**, the dividend must not be shown as a current liability in the statement of financial position. (The proposed dividend should be disclosed by way of a note to the accounts).

Dividends are therefore normally accounted for, in the statement of financial position (retained earnings) and in the statement of changes in equity, on a 'dividends paid' basis and not on a 'dividends payable' basis.

This ruling applies to dividends paid or payable by a subsidiary.

6.1 Dividends paid by a subsidiary: 100%-owned subsidiary

If a subsidiary pays a dividend during the financial year, the dividend reduces the retained earnings of the subsidiary.

However, if the subsidiary is 100% owned, the dividends paid by the subsidiary are dividends received by the parent. The retained earnings of the subsidiary are reduced by the dividends paid, but the income (and so the retained earnings) of the parent company are increased. The dividend payment is self-cancelling.

Dividend payments

In the consolidated accounts, the **dividend paid by a subsidiary** is not included in the consolidated income statement. A dividend payment is a change in equity during the year, and is shown in the statement of changes in equity (SOCIE) in the financial statements of the subsidiary.

If the subsidiary is 100% owned, the payment of the dividend is not shown in the consolidated statement of changes in equity (SOCIE) because the decrease in the subsidiary's retained earnings is matched by an increase in the parent's retained earnings.

Dividends paid by the parent company are treated in the same way as dividend payments in the financial statements of individual entities, and are reported in the consolidated statement of changes in equity (consolidated SOCIE). They also reduce

the retained earnings attributable to owners of the parent in the consolidated statement of financial position

Dividends received by the parent from other group companies

Dividends received by the parent from subsidiaries are included as 'other income' in the income statement of the parent company.

However, these dividends received by the parent should be excluded from the **consolidated** income statement. This is because the consolidation process brings in the whole of the subsidiary's profit, including any dividends paid by the subsidiary. If we also accounted for the dividend income of the parent from the subsidiary, there would be 'double counting' of this part of the profit.



Example

A parent company P owns 100% of a subsidiary S. At the beginning of the year, the retained earnings of the companies were as follows:

- Parent: \$300,000
- Subsidiary: \$200,000.

All the profits of S are post-acquisition profits and there was no goodwill on acquisition.

During the year, P made a profit after tax of \$70,000, **excluding** the dividend income, and S made a profit after tax of \$50,000. P paid a dividend of \$80,000 and S paid a dividend of \$30,000.

The situation is as follows.

	P	S	On consolidation
	\$	\$	\$
Retained earnings at the start of the year	300,000	200,000	500,000
Profit excluding dividend income	70,000	50,000	120,000
Dividend received from/paid by S	30,000	(30,000)	-
Dividend paid by P	<u>(80,000)</u>	<u>-</u>	<u>(80,000)</u>
Retained earnings at the end of the year	<u>320,000</u>	<u>220,000</u>	<u>540,000</u>

This figure of \$540,000 is the retained earnings for the group on consolidation at the end of the year (because there is no goodwill and goodwill impairment, and all profits are post-acquisition).

The profit for the year in the consolidated income statement should be \$120,000, and should exclude the dividend received by P from S.

The statement of changes in equity (SOCIE) will show a reduction in retained earnings of \$80,000, for the dividend paid by the parent P.

6.2 Dividends paid by a subsidiary: partly-owned subsidiary

When a subsidiary is partly owned, the same rules apply, with just one exception.

The dividend received by the parent from the subsidiary is only a portion of the total dividend.

The dividend paid to the non-controlling interest reduces the non-controlling interest's share of the retained profits of the subsidiary. In the SOCIE, there should be a separate column for non-controlling interest, and dividends paid to the non-controlling interest are shown as a reduction in its equity interest during the year.



Example

Take the same data as in the previous example, but assume that the subsidiary is only 80% owned, and 20% of the subsidiary is owned by non-controlling interests. The situation would be as follows:

	Parent	Subsidiary Parent share	Non- controlling interest	On consolidation
	\$	\$	\$	\$
Retained earnings at the start of the year	300,000	160,000	40,000	500,000
Profit excluding dividend income	70,000	40,000	10,000	120,000
Dividend received from/paid by S	24,000	(24,000)	(6,000)	(6,000)
Dividend paid by P	<u>(80,000)</u>	<u>-</u>	<u>-</u>	<u>(80,000)</u>
Retained earnings at the end of the year	<u>314,000</u>	<u>176,000</u>	<u>44,000</u>	<u>534,000</u>

The profit of the subsidiary for the year is \$50,000. The parent's share is \$40,000 and the non-controlling interest share is \$10,000 (= 20%).

The non-controlling interest is paid a dividend of \$6,000 (= \$30,000 × 20%). This goes outside the group and reduces the non-controlling interest. The dividend paid within the group is self-cancelling,

The dividend paid to the non-controlling interest is reported in the consolidated statement of changes in equity (SOCIE).

The non-controlling interest in the subsidiary's retained earnings in the consolidated statement of financial position is:

$20\% \times \$ (200,000 + 50,000 - 30,000) = \$44,000$. (Or, more simply, 20% of the retained earnings of S at the year-end = $20\% \times \$220,000 = \$44,000$.)

6.3 Dividends paid by a subsidiary out of pre-acquisition profits

In the year that a parent company acquires a new subsidiary, the subsidiary might pay a dividend, and some or all of the dividend might be paid out of pre-acquisition profits.

Before the issue of an amendment to IAS 27 in May 2008, any dividend paid out of pre-acquisition profits was treated as a return to the parent of a part of the cost of the investment. In that case the parent reduced the cost of the investment in its statement of financial position by the amount of the dividend received out of the pre-acquisition profits of the subsidiary.

Now (since the amendment) any pre-acquisition dividend is recognised as income in the parent's profit or loss for the year and there is no reduction in the cost of the investment in the parent's statement of financial position.

6.4 Dividends payable by a subsidiary and declared before the end of the financial year

The normal rule in IAS10 is that if an entity declares a dividend after the end of a reporting period, it must not be included as a liability in its statement of financial position. The proposed dividend must be disclosed in a note to the financial statements. This rule applies even if the dividend payment has been appropriately authorised by the shareholders of the company.

In **rare circumstances**, a subsidiary might declare an equity dividend before the end of its financial year, where the dividend will not be payable until after the end of the year.

When a dividend is declared payable before the end of the year, the dividend can be reported in the statement of financial position as a current liability because it meets the definition of a liability as at the end of the reporting period.

If a **100%-owned subsidiary** declares a dividend before the end of its financial year, payable after the year end:

- the dividend payable by the subsidiary (a current liability) is matched by
- a dividend receivable by the parent (a current asset)

The two items should be cancelled out on consolidation.

If a **partly-owned subsidiary** declares a dividend before the end of its financial year, payable after the year end:

- The dividend payable by the subsidiary to the parent (a current liability) is matched by a dividend receivable by the parent (a current asset). The two items should be cancelled out on consolidation.
- This will leave some of the dividend payable by the subsidiary 'not cancelled' or 'uncancelled'. This is the dividend payable to the non-controlling interest.
- This dividend payable to the non-controlling interest is included in the consolidated statement of financial position as a current liability.

Dividends (actual or proposed) are not included in the consolidated income statement or consolidated statement of comprehensive income; therefore the **consolidated income statement** is not affected.

Associates

Contents

- 1 Definition of associate
- 2 Accounting for investments in associates: equity method

Definition of associate

- The nature of the accounting problem
- Definition of an associate
- Method of accounting for associates

1 Definition of associate

1.1 The nature of the accounting problem

The previous chapters have explained the 'purchase method' of accounting for subsidiaries. The principle underlying the purchase method is that subsidiaries are under the **control** of the parent entity; therefore it is appropriate to present financial statements for the parent and its subsidiaries as if the group were a single operating entity.

The parent's share of the equity in the group and the non-controlling interest share (minority interest) of the equity are both included, but are shown separately.

Consolidation using the purchase method is not required where there is an investment in shares of another company, but the investment does not give control.

If an entity owns a **fairly small interest** in the equity shares of another company, and the investment is long-term:

- the shares are shown in the statement of financial position as a long-term assets (an investment) and valued in accordance with IAS39
- any dividends received for the shares are included in the income for the year as 'other income'.

Some investments in the equity shares of another company are **fairly substantial without giving control**. They are more than simple small investments, because the entity owning the shares has a reasonable degree of influence through the size of its shareholding. However, the investment does not give control; therefore it cannot be treated as a subsidiary.

These fairly substantial investments are accounted for as an investment in an associate. IAS28: **Investments in associates** deals with accounting for associates.

1.2 Definition of an associate

An associate is defined by IAS28 as: 'an entity... over which the investor has significant influence... that is neither a subsidiary nor an interest in a joint venture.'

Significant influence is defined as the power to participate in the financial and operating policy decisions of the entity, but is not control or joint control.

IAS28 states that if an entity holds 20% or more of the voting power (equity) of another entity, it is presumed that significant influence exists, and the investment should be treated as an associate.

If an entity owns less than 20% of the equity of another entity, the normal presumption is that significant influence does not exist.

Holding 20% to 50% of the equity of another entity therefore means as a general rule that significant influence exists, but not control; therefore the investment is treated as an associate, provided that it is not a joint venture.

The '**20% or more**' rule is a general guideline, however, and IAS28 states more specifically how significant influence arises. The existence of significant influence is usually evidenced in one or more of the following ways:

- representation on the board of directors
- participation in policy-making processes, including participation in decisions about distributions (dividends)
- material transactions between the two entities
- an interchange of management personnel between the two entities
- the provision of essential technical information by one entity to the other.

An entity loses significant influence when it loses the ability to participate in financial and operating policy decisions of the entity in which it has invested (the 'investee' entity). This might occur, for example, if the investee becomes subject to the control of a government, a court or a regulator.

1.3 Method of accounting for associates

IAS28 states that **associates** must be accounted for in consolidated financial statements using the **equity method of accounting**.

Accounting for investments in associates: equity method

- The nature of the accounting problem
- The main features of equity accounting
- Trading with an associate: unrealised profit in closing inventory
- Comparing the purchase method for subsidiaries and the equity method for associates

2 Accounting for investments in associates: equity method

2.1 Applying the equity method to account for associates

IAS28 states that an investment in an associate must be accounted for using the equity method of accounting. This rule applies whether or not the entity also has subsidiaries and prepares consolidated financial statements. An examination question might include an investment in an associate together with an investment in a subsidiary, with a requirement to prepare consolidated financial statements for the parent, subsidiary and associate combined. Consolidated financial statements should be prepared for the parent and subsidiary using the rules described in the previous chapters, and the associate should be included using the equity method of accounting.

The only exceptions to the requirement to use the equity method to account for investments in associates are:

- when the reporting entity presents separate financial statements in accordance with IAS27, or
- when the associate is acquired and held with a view to disposal within 12 months of acquisition, so that it is classified as 'held for sale' in accordance with IFRS5.

Differences in financial year-ends

IAS28 states that when the financial year of the reporting entity (the 'investor' entity) and the associate are different, the associate should prepare for the investor a set of financial statements with the same year end, unless it is impracticable to do so.

When different year-ends have to be used, the difference in the reporting date of the investor and the reporting date of the associate must be no more than three months. In addition, adjustments should be made for any significant transactions or events affecting the associate after the year-end of the investor but before its own year-end.

Uniform accounting policies

IAS28 also states that the financial statements of the investor entity and the associate should be prepared using uniform accounting policies for similar transactions. Where necessary, adjustments should be made to the financial statements of the associate so that they are the same as those of the reporting (investor) entity.

2.2 The main features of equity accounting

The main features of the equity accounting method are as follows.

Statement of financial position: investment in the associate

In the statement of financial position of the reporting entity (the investor), an investment in an associate is valued at:

- cost
- **plus** the investor's share of the retained post-acquisition profits of the associate (or minus the investor's share of any post-acquisition losses)
- **minus** any impairment in the value of the investment since acquisition.

There is no separately-recognised goodwill on acquisition of an investment in an associate. However, the investment in the associate should be subject to an annual impairment review in accordance with IAS36. Any impairment in the investment is deducted from the carrying value of the investment in the statement of financial position (and deducted from the reporting entity's retained earnings).

Statement of financial position: retained earnings

The retained earnings of the reporting entity, or the consolidated reserves when consolidated accounts are prepared, should include:

- the investor's share of the post-acquisition retained profits of the associate,
- **minus** any impairment in the value of the investment since acquisition.

Income statement

In the income statement (or the statement of comprehensive income, when a single statement is prepared), there should be a separate line for:

- 'Share of profits of associate'.



Example

Entity P acquired 40% of the equity shares in Entity A during Year 1 at a cost of \$128,000 when the fair value of the net assets of Entity A was \$250,000. Since that time, the investment in the associate has been impaired by \$8,000.

Since acquisition of the investment, there has been no change in the issued share capital of Entity A, nor in its share premium reserve or revaluation reserve. On 31 December Year 5, the net assets of Entity A were \$400,000.

In the year to 31 December Year 5, the profits of Entity A after tax were \$50,000.

Required

What figures would be included for the associate in the financial statements of Entity P for the year to 31 December Year 5?

a**Answer**

It is presumed that the investment in Entity A is an investment in an associate.

Retained post-acquisition profits of Entity A	\$
Net assets of the associate at 31 December Year 5	400,000
Net assets of Entity A at date of acquisition of shares	<u>(250,000)</u>
Retained post-acquisition profits of Entity A	<u>150,000</u>
The share 'owned' by Entity P is $40\% \times \$150,000$	= \$60,000

In the **statement of financial position**, the investment in the associate is as follows:

	\$
Investment at cost	128,000
Investor's share of post-acquisition profits of A	60,000
Minus: Accumulated impairment in the investment	<u>(8,000)</u>
Investment in the associate	<u>180,000</u>

Alternatively this figure for investment in the associate could be calculated as follows:

	\$
Share of net asset's of associate at the end of the reporting period ($40\% \times \$400,000$)	160,000
Goodwill not yet written off ($\$128,000 - (40\% \times \$250,000) - \$8,000$)	<u>20,000</u>
	<u>180,000</u>

The **retained earnings** in the statement of financial position will include:

	\$
Investor's share of post-acquisition profits of A	60,000
Minus: Accumulated impairment in the investment	<u>(8,000)</u>
	<u>52,000</u>

In the section of the statement of comprehensive income that reports the profit or loss for the period, the share of the associate's after-tax profit for the year is shown on a separate line:

- Share of profits of associate ($40\% \times \$50,000$): \$20,000.

The reasons for the use of the equity method

The equity method is used to represent the nature of the relationship between an investor and an associate.

The equity method reflects the investor's significant influence. This is less than control, but more than just the right to receive dividends that a simple investment would give.

Consolidated financial statements include 100% of a subsidiary's assets and liabilities, because these are controlled by the parent, even if the parent owns less than 100% of the equity shares. Consolidation would not be an appropriate way of accounting for an associate.

Under the equity method:

- the investor's **share** of the associate's assets, liabilities, profits and losses is included in the investor's financial statements; this represents significant influence
- the investor's share of the associate is shown on one line in the statement of comprehensive income (as an item of profit or loss) and the statement of financial position, making it clear that the associate is separate from the main group (a single economic entity).

Disadvantages of the equity method

The equity method has some important disadvantages for users of the financial statements.

Because only the investor's share of the net assets is shown, information about individual assets and liabilities can be hidden. For example, if an associate has significant borrowings or other liabilities, this is not obvious to a user of the investor's financial statements.

In the same way, the equity method does not provide any information about the components that make up an associate's profit for the period.

2.3 Trading with an associate: unrealised profit in closing inventory

When the investor entity (or a subsidiary) trades with an associate:

- the investor entity might owe money to the associate, or be owed money by the associate
- closing inventory might be held by investor entity or by the associate that includes some unrealised profit on sales between the investor entity and the associate (in the same way that there might be unrealised profit in inventory sold between a parent and a subsidiary).

The accounting rules for dealing with these items for associates are different from the rules for subsidiaries.

Inter-entity balances. Any amount owed by the investor entity to the associate or owed by the associate to the investor entity should be included in the current liabilities or current assets in the statement of financial position of the investor entity (and in its consolidated statement of financial position, if it prepares consolidated accounts). In other words, inter-entity balances are not self-cancelling.

Unrealised inter-group profit. However, any unrealised profit in closing inventory must be removed.

- If the unrealised profit is held in inventory of the investor/reporting entity, the inventory should be reduced in value by the amount of the investor's share of the unrealised profit
- If the unrealised profit is held in inventory of the associate, the **investment in the associate** should be reduced by the investor's share of the unrealised profit.

In both cases, there should also be a reduction in the post-acquisition profits of the associate, and the investor entity's share of those profits (as reported in the income statement). This will reduce the retained earnings in the statement of financial position.



Example

Entity P acquired 30% of the equity shares of Entity A several years ago. The cost of the investment was \$275,000. There has been no impairment in the investment.

Entity P's share of the post-acquisition retained profits of Entity A was \$80,000 as at 31 December Year 5. In the year to 31 December Year 6, the reported profits after tax of Entity A were \$100,000.

In the year to 31 December Year 6, Entity P sold \$150,000 of goods to Entity A, and the mark-up was 50% on cost. Of these goods, \$30,000 were still held as inventory by Entity A at the year-end.

The unrealised profit on this inventory is $\$30,000 \times (50/150) = \$10,000$. Entity P's share of this unrealised profit is (30%) \$3,000.

- The unrealised profits are in inventory held by the associate; therefore the investment in the associate is reduced by the investor company's share of the unrealised profit. The investment in the associate at 31 December Year 6 is as follows:

	\$
Cost of the investment	275,000
Entity P's share of post-acquisition profits of Entity A (= \$80,000 + 30% × \$100,000)	110,000
Minus entity P's share of unrealised profit in inventory	(3,000)
Minus accumulated impairment in the investment	(0)
	382,000

- The share of the profits of Entity A reported in the income statement of Entity P for the year to 31 December Year 6 is after deducting its share of the unrealised profit:

$$= (30\% \times \$100,000) - \$3,000 = \$27,000.$$

This will also be included within the retained earnings in the statement of financial position of Entity P as of 31 December Year 6.

In the income statement for the year, the investor entity's share of the associate's profits for the year is after deducting the unrealised profit.

2.4 Comparing the purchase method for subsidiaries and the equity method for associates

It is useful to compare the purchase method of accounting that applies to subsidiaries (also called the acquisition method) with the equity method of accounting that applies to associates.

Study the following example carefully and note the difference in accounting treatment for the investment in the subsidiary and the investment in the associate.



Example

The statements of financial position of three entities P, S and A are shown below. The statements of financial position are as of 31 December Year 5. However, the statement of financial position of P records its investment in Entity A incorrectly. The investment in A is shown at cost, instead of in accordance with the equity method of accounting and the requirements of IAS28.

The accounting policy of P is to value non-controlling interests in its subsidiary at a proportionate amount of net identifiable assets.

	P	S	A
	\$	\$	\$
Non-current assets			
Property, plant and equipment	450,000	240,000	460,000
Investment in S at cost	320,000	-	-
Investment in A at cost	140,000	-	-
	<u>910,000</u>	<u>240,000</u>	<u>460,000</u>
Current assets			
Inventory	70,000	90,000	70,000
Current account with P	-	60,000	-
Current account with A	20,000	-	-
Other current assets	110,000	130,000	40,000
Total assets	<u>1,110,000</u>	<u>520,000</u>	<u>570,000</u>

Equity			
Equity shares of \$1	100,000	200,000	100,000
Share premium	160,000	80,000	120,000
Retained earnings	650,000	140,000	250,000
	<u>910,000</u>	<u>420,000</u>	<u>470,000</u>
Non-current liabilities	40,000	20,000	30,000
Current liabilities			
Current account with P	-	-	20,000
Current account with S	60,000	-	-
Other current liabilities	100,000	80,000	50,000
	<u>1,110,000</u>	<u>520,000</u>	<u>570,000</u>

Additional information

- P bought 150,000 shares in S several years ago when the fair value of the net assets of S was \$340,000.
- P bought 30,000 shares in A several years ago when the fair value of A's net assets was \$370,000.
- There has been no change in the issued share capital or share premium of either S or A since P acquired its shares in them.
- There has been impairment of \$20,000 in the goodwill relating to the investment in S, but no impairment in the value of the investment in A.
- On 31 December Year 5, A holds inventory purchased during the year from P which is valued at \$16,000 and P holds inventory purchased from S which is valued at \$40,000. Sales from P to A and from S to P are priced at a mark-up of one-third on cost.
- None of the entities has paid a dividend during the year.

Required

Prepare the consolidated statement of financial position of the P group as of 31 December Year 5.

a

Answer

Step 1. Calculate the group structure

P owns 75% of the equity of S and 30% of the equity of A. Therefore S is a subsidiary and A is an associate.

Step 2. Calculate the net assets of S and A at the acquisition date and at the end of the reporting period.

At this stage, make any fair value adjustments and eliminate the unrealised profit in inventory.

Net assets of S	At 31 December Year 5	At acquisition of control	Post acquisition
	\$		
Equity shares	200,000	200,000	-
Share premium	80,000	80,000	-
Retained earnings (\$140,000 – unrealised profit of \$10,000 (see working))	130,000	60,000	70,000
	410,000	340,000	

Net assets of A	At 31 December Year 5	At acquisition of shares	Post acquisition
	\$		
Equity shares	100,000	100,000	-
Share premium	120,000	120,000	-
Retained earnings (\$250,000 minus unrealised profit of \$4,000 (see working))	246,000	150,000	96,000
	466,000	370,000	

Working

Inventory of A: Unrealised profit = $\$16,000 \times 33.33/133.33 = \$4,000$.

Inventory of P: Unrealised profit = $\$40,000 \times 33.33/133.33 = \$10,000$.

The adjustments should be made to the post-acquisition profits of S and A. In addition we need to do the following:

- Reduce the investment in A by \$1,200 in the consolidated statement of financial position. (This will be achieved automatically by Step 6 below.)
- For the inventory held by P, reduce the inventory on consolidation by \$10,000.

Step 3. Calculate the goodwill

Purchased goodwill applies to the subsidiary S only, not to the investment in the associate

	\$
Cost of the acquisition	320,000
Parent's share of the subsidiary's net assets at acquisition (75% (Step 1) × \$340,000 (Step 2))	(255,000)
Goodwill at acquisition	65,000
Minus: Impairment to date	(20,000)
Balance carried forward	45,000

Step 4. Calculate the non-controlling interest in S.

Non-controlling interest's share of net assets of the subsidiary at 31 December Year 5
 $= 25\% (W1) \times \$410,000 (W2) = \$102,500.$

Step 5. Calculate the consolidated retained earnings.

	\$
Retained earnings of P	650,000
P's share of post-acquisition profits of S (= 75% (Step 1) × \$70,000 (Step 2))	52,500
P's share of post-acquisition profits of A (= 30% (Step 1) × \$96,000 (Step 2))	28,800
Minus impaired goodwill since acquisition (investment in S) (Step 3)	<u>(20,000)</u>
Consolidated retained earnings	<u>711,300</u>

Step 6. Calculate the investment in associate A

The investment in associate A is calculated as follows:

	\$
Investment at cost	140,000
P's share of post-acquisition retained profits of A (Step 5)	<u>28,800</u>
	<u>168,800</u>

Note: P's share of the post-acquisition profits of A include its share (\$1,200) of the provision for unrealised profit in the inventory of A (Step 2).

A consolidated statement of financial position can now be prepared, as follows.

P Group**Consolidated statement of financial position as at 31 December Year 5**

Non-current assets	\$
Property, plant and equipment (450,000 + 240,000) – P and S only	690,000
Goodwill (Step 3)	45,000
Investment in associates (Step 6)	<u>168,800</u>
	903,800
Current assets	
Inventory (70,000 + 90,000 – 10,000): see note 1	150,000
Other current assets (20,000 + 110,000 + 130,000): see note 2	<u>260,000</u>
Total assets	<u>1,313,800</u>

Equity and liabilities	
Equity attributable to owners of the parent	
Equity shares of \$1	100,000
Share premium	160,000
Consolidated retained earnings (Step 5)	711,300
	<u>971,300</u>
Non-controlling interests in S (Step 4)	102,500
	<u>1,073,800</u>
Total equity	1,073,800
Long-term liabilities (40,000 + 20,000): P and S only	60,000
Current liabilities (100,000 + 80,000): P and S only	180,000
	<u>1,313,800</u>
Total equity and liabilities	1,313,800

Notes

1. Inventory	\$
<hr/>	
Inventory of P	70,000
Inventory of S	90,000
Unrealised profit in inventory of P	<u>(10,000)</u>
	<u>150,000</u>
2. Other current assets	\$
<hr/>	
Entity P: current account with A	20,000
Entity P: other current assets	110,000
Entity S: other current assets	<u>130,000</u>
	<u>260,000</u>

Analysing and interpreting financial statements

Contents

- 1 Purpose of financial ratio analysis
- 2 Return on capital, profitability and asset turnover
- 3 Working capital efficiency ratios
- 4 Liquidity ratios
- 5 Debt ratios
- 6 Investor ratios
- 7 Limitations of interpretation techniques
- 8 Specialised, not-for-profit and public sector entities

Purpose of financial ratio analysis

- Obtaining information from the financial statements: financial ratios
- Using ratios: comparisons
- Categories of financial ratios
- Users of the financial statements and their information needs

1 Purpose of financial ratio analysis

A requirement of the examination is that you should be able to analyse the financial statements of either a single company or a group, calculate suitable financial ratios and comment on them. You will be required not only to calculate the ratios, but also to interpret them and suggest what they might indicate about the financial position and financial performance of the company or group.

1.1 Obtaining information from the financial statements: financial ratios

Financial statements are used to make decisions. They are used by shareholders and investors, and also by lenders, as well as by management. The financial statements contain a large number of figures, but the figures themselves do not necessarily have much meaning to a user of the financial statements. However, the figures can be analysed and interpreted by calculating financial ratios.

Financial ratios can help the user of the financial statements to assess:

- the financial position of the entity, and
- its financial performance

1.2 Using ratios: comparisons

Financial ratios can be used to make comparisons:

- Comparisons over a number of years. By looking at the ratios of a company over a number of years, it might be possible to detect improvements or a deterioration in the financial performance or financial position of the entity. Ratios can therefore be used to make comparisons over time, and to identify changes or trends
- Comparisons with the similar ratios of other, similar companies for the same period.
- In some cases, perhaps, comparisons with 'industry average' ratios.

1.3 Categories of financial ratios

The main financial ratios can be classified as:

- financial performance: return on capital, profitability and use of assets
- working capital 'turnover' ratios
- liquidity ratios
- debt ratios
- investor ratios.

1.4 Users of the financial statements and their information needs

The IASB Framework identifies several groups of people who may use financial statements:

- investors and potential investors
- lenders
- employees
- suppliers
- customers
- government and government agencies
- the general public.

All these groups are interested in financial performance, financial position and cash flows, but some users are mainly interested in performance and profitability, while others may be more interested in liquidity and gearing or other matters.

For example:

- A private investor needs to know whether to continue to hold shares or to sell them. He or she will tend to be most interested in profitability ratios (such as gross and net profit margin and return on capital employed) and investor ratios (such as earnings per share, dividend cover and price earnings ratio).
- A potential acquirer needs information about an entity's profitability and probably also information about whether or not the entity is managed efficiently. The acquirer's management is likely to focus on profit margins, return on capital employed, asset turnover and working capital ratios.
- A bank that has been approached to lend money to an entity needs to know whether it will receive interest payments when these are due and whether the money that it lends will eventually be repaid. A bank manager will normally be most interested in cash flows and liquidity ratios (current ratio, acid test ratio) gearing and interest cover. A potential lender will also be interested in predicting future performance as without sales there will be no cash.

An examination question might ask you to interpret an entity's financial statements for the benefit of specific people or groups of people. Therefore your analysis should focus on the needs of the user. What do they need to know? What are they interested in? What decision do they need to make?

Return on capital, profitability and asset turnover

- Return on capital employed
- Return on shareholder capital
- Analysing return: profitability and asset utilisation
- Profit/sales ratio (and cost/sales ratios)
- Sales/capital employed ratio
- Percentage annual growth in sales

2 Return on capital, profitability and asset turnover

The aim of 'profitability ratios' is to assess the financial performance of a profit-making entity and the return that it makes on the capital invested.

2.1 Return on capital employed

Profit-making companies should try to make a profit that is large enough in relation to the amount of money or capital invested in the business. The most important profitability ratio is probably return on capital employed or ROCE.

For a single company:

$$\text{ROCE} = \frac{\text{Profit before interest and taxation}}{\text{Share capital and reserves} + \text{Long-term debt capital}} \times 100\%$$

The capital employed is the share capital and reserves, plus long-term debt capital such as bank loans, bonds and loan stock.

Where possible, use the average capital employed during the year. This is usually the average of the capital employed at the beginning of the year and end of the year.



Example

Sting Company achieved the following results in Year 1.

	1 January Year 1	31 December Year 1
	\$	\$
Share capital	200,000	200,000
Share premium	100,000	100,000
Retained earnings	500,000	600,000
Bank loans	200,000	500,000

	\$
Profit before tax	210,000
Income tax expense	<u>65,000</u>
Profit after tax	<u>145,000</u>

Interest charges on bank loans were \$30,000. Dividend payments to shareholders were \$45,000. Sales during the year were \$5,800,000.

Required

Calculate the return on capital employed for Year 1.

a

Answer

Capital employed at the beginning of the year = \$1,000,000.

Capital employed at the end of the year = \$1,400,000.

Average capital employed = $[\$1,000,000 + \$1,400,000] / 2 = \$1,200,000$.

Profit before interest and taxation = $\$210,000 + \$30,000 = \$240,000$.

$$\text{ROCE} = \frac{240,000}{1,200,000} \times 100\% = 20\%$$

This ROCE figure can be compared with the ROCE achieved by the company in previous years, and with the ROCE achieved by other companies, particularly competitors.

Groups of companies and ROCE

To calculate the ROCE for a group of companies, it is necessary to decide what to do with any non-controlling interest (minority interest). Since capital employed includes all the debt capital in the group, it makes sense to include the non-controlling interest (minority interest) in the capital employed.

ROCE should therefore be measured as profit before interest and tax as a proportion of total capital employed, **including the non-controlling interest (minority interest)**.

2.2 Return on shareholder capital

Return on shareholder capital (ROSC) measures the return on investment that the shareholders of the company have made. This ratio normally uses the values of the shareholders' investment as shown in the statement of financial position (rather than market values of the shares).

$$\text{ROSC} = \frac{\text{Profit after taxation}}{\text{Share capital and reserves}} \times 100\%$$

The average value of shareholder capital should be used if possible. This is the average of the shareholder capital at the beginning and the end of the year.

Profit after tax is used as the most suitable measure of return for the shareholders, since this is a measure of earnings (available for payment as dividends or for reinvestment in the business).



Example

Using the figures in the previous example:

Shareholders' capital at the beginning of the year = \$200,000 + \$100,000 + \$500,000
= \$800,000.

Shareholders' capital at the end of the year = \$200,000 + \$100,000 + \$600,000
= \$900,000.

Average shareholders' capital employed = $[\$800,000 + \$900,000]/2 = \$850,000$.

$$\text{ROSC} = \frac{145,000}{850,000} \times 100\% = 17.06\%$$

Groups of companies and ROSC

When calculating the ROSC for a group of companies, the main focus of attention is normally the return on the investment of the shareholders in the parent company. The ROSC should therefore be calculated as:

$$\frac{\text{Profit after taxation and minority interest}}{\text{Equity attributable to equity holders of the parent company}} \times 100\%$$

The share capital and reserves should not include the non-controlling interest (minority interest) in the equity reserves.

2.3 Analysing return: profitability and asset utilisation

The size of the return on capital employed, or the size of the return on shareholders' capital, depends on two factors:

- the profitability of the goods or services that the entity has sold
- the volume of sales that the entity has achieved with the capital and assets it has employed: this is known as asset utilisation or asset turnover.

2.4 Profit/sales ratio (and cost/sales ratios)

The profit/sales ratio is the ratio of the profit that has been achieved for every \$1 of sales.

$$\text{Profit/sales ratio} = \frac{\text{Profit}}{\text{Sales}} \times 100\%$$

Profit/sales ratios are commonly used by management to assess financial performance, and a variety of different figures for profit might be used.

The definition of profit can be any of the following:

- Profit before interest and tax
- Gross profit (= Sales minus the Cost of sales) = '**gross profit ratio**'
- Net profit (= Profit after tax) = '**net profit ratio**'.

It is important to be consistent in the definition of profit, when comparing performance from one year to the next.

The gross profit ratio is often useful for comparisons between companies in the same industry, or for comparison with an industry average.

It is also useful to compare the net profit ratio with the gross profit ratio. A high gross profit ratio and a low net profit ratio indicate high overhead costs for administrative expenses and selling and distribution costs.



Example

Using the figures in the previous example, profit/sales ratios can be calculated as follows:

- If profit is defined as profit **before** interest and tax, the profit/sales ratio = $\$240,000/\$5,800,000 = 0.0414 = 4.14\%$
- If profit is defined as profit **after** interest and tax, the profit/sales ratio = $\$145,000/\$5,800,000 = 0.025 = 2.5\%$

It is also useful to monitor the ratio of costs to sales:

- Ratio of (Cost of sales/Sales) $\times 100\%$
- Ratio of (Administration costs/Sales) $\times 100\%$
- Ratio of (Selling and distribution costs/Sales) $\times 100\%$

2.5 Sales/capital employed ratio

The sales/capital employed ratio is also called the 'asset turnover ratio'. It measures the amount of sales achieved during the period for each \$1 of investment in assets.

$$\text{Asset turnover ratio} = \frac{\text{Sales}}{\text{Share capital and reserves} + \text{Long - term debt capital}}$$

It is measured as 'x times a year'.

The sales/capital employed ratio is also a ratio of sales to (assets – current liabilities). This is because capital employed = total assets minus liabilities excluding long-term debt.



Example

Using the figures in the previous example, the asset turnover ratio = $\$5,800,000/\$1,200,000 = 4.83$ times.

Note that:

ROCE = Profit/sales ratio \times Asset turnover ratio
(where profit is defined as profit before interest and taxation).

Using the figures in the previous example:

$$\begin{array}{rclcl}
 \text{ROCE} & = & \text{Profit/sales} & \times & \text{Sales/capital} \\
 & & & & \text{employed} \\
 \\
 \frac{240,000}{1,200,000} & = & \frac{240,000}{5,800,000} & \times & \frac{5,800,000}{1,200,000} \\
 \\
 20\% & = & 4.14\% & \times & 4.83 \text{ times}
 \end{array}$$

2.6 Percentage annual growth in sales

It can be useful to measure the annual growth (or decline) in sales, measured as a percentage of sales in the previous year.

For example, if sales in the year just ended were \$5,800,000 and sales in the previous year were \$5,500,000, the annual growth in sales has been $(\$300,000/\$5,500,000) \times 100\% = 5.45\%$.

Working capital efficiency ratios

- Purpose of working capital efficiency ratios
- Average time to collect (receivables days or days sales outstanding)
- Average time for holding inventory (inventory turnover)
- Average time to pay suppliers
- Cash operating cycle/working capital cycle
- Working capital efficiency ratios and consolidated accounts

3 Working capital efficiency ratios

3.1 Purpose of working capital efficiency ratios

Working capital efficiency ratios measure the efficiency with which the entity has managed its receivables, inventory and trade payables. The ratios are usually measured in terms of an average number of days.

The working capital ratios are a useful measure of whether the entity has too much or too little invested in working capital.

Excessive investment in working capital is indicated by a long cash cycle (a long working capital cycle) that appears to be getting even longer. When too much is invested in working capital, the return on capital employed and ROSC will be lower than they should be.

Under-investment in working capital is an indication of possible liquidity difficulties. When working capital is low in comparison with the industry average, this might indicate that current assets are being financed to an excessive extent by current liabilities, particularly trade payables and a bank overdraft.

(The cash cycle, also called the operating cycle and the working capital cycle) is explained later.)

3.2 Average time to collect (receivables days or days sales outstanding)

This ratio estimates the time that it takes on average to collect the payment from customers after the sale has been made. It could be described as the average credit period allowed to customers or the 'average collection period'.

$$\text{Average days to collect} = \frac{\text{Trade receivables}}{\text{Sales}} \times 365 \text{ days}$$

Trade receivables should be the average value of receivables during the year. This is the average of the receivables at the beginning of the year and the receivables at the end of the year.

However, the value for receivables at the end of the year is also commonly used.

Sales are usually taken as total sales for the year. However, if sales are analysed into credit sales and cash sales, it is probably more appropriate to use the figure for credit sales only.

The average time to collect money from credit customers should not be too long. A long average time to collect suggests inefficient collection of amounts due from receivables.

3.3 Average time for holding inventory (inventory turnover)

This ratio is an estimate of the average time that inventory is held before it is used or sold.

$$\text{Inventory turnover} = \frac{\text{Inventory}}{\text{Cost of sales}} \times 365 \text{ days}$$

In theory, inventory should be the average value of inventory during the year. This is the average of the inventory at the beginning of the year and the inventory at the end of the year.

However, the value for inventory at the end of the year is also commonly used, particularly in examinations.

3.4 Average time to pay suppliers

The average time to pay suppliers may be calculated as follows:

$$\text{Average time to pay} = \frac{\text{Trade payables}}{\text{Cost of purchases}} \times 365 \text{ days}$$

Trade payables should be the average value of trade payables during the year. This is the average of the trade payables at the beginning of the year and the trade payables at the end of the year.

However, the value for trade payables at the end of the year is also commonly used. When the cost of purchases is not available, the **cost of sales** should be used instead. This figure is obtained from the profit and loss information in the statement of comprehensive income.



Example

The following information is available for The Brush Company for Year 1.

	1 January Year 1	31 December Year 1
	\$	\$
Inventory	300,000	360,000
Trade receivables	400,000	470,000
Trade payables	150,000	180,000

Sales in Year 1 totalled \$3,000,000 and the cost of sales was \$1,800,000.

Required

Calculate the working capital turnover ratios.

a

Answer

Average inventory = $[\$300,000 + \$360,000]/2 = \$330,000$

Average trade receivables = $[\$400,000 + \$470,000]/2 = \$435,000$

Average trade payables = $[\$150,000 + \$180,000]/2 = \$165,000$.

Turnover ratios

Average days to collect = $[435,000/3,000,000] \times 365 \text{ days} = 52.9 \text{ days}$

Inventory turnover period = $[330,000/1,800,000] \times 365 \text{ days} = 66.9 \text{ days}$

Average time to pay = $[165,000/1,800,000] \times 365 \text{ days} = 33.5 \text{ days}$.

3.5 Cash operating cycle/working capital cycle

The cash operating cycle or working capital cycle is the average time of one cycle of business operations:

- from the time that suppliers are paid for the resources they supply
- to the time that cash is received from customers for the goods (or services) that the entity makes (or provides) with those resources and then sells.

A cash cycle or operating cycle is measured as follows. Figures are included for the purpose of illustration:

	Days	Days
Inventory turnover	A	40.2
Average days to collect	B	88.2
		128.4
Average time to pay	(C)	(33.5)
Cash cycle/operating cycle	<u>A + B - C</u>	<u>94.9</u>

The working capital ratios and the length of the cash cycle should be monitored over time. The cycle should not be allowed to become unreasonable in length, with a risk of over-investment or under-investment in working capital.

3.6 Working capital efficiency ratios and consolidated accounts

Working capital efficiency ratios can be calculated from consolidated accounts, in the same way as for the financial statements of an individual company. However, the ratios obtained will be ratios for the group as if it were a single operating unit.

This could be misleading. Poor working capital efficiency in some subsidiaries may be hidden by reasonably good ratios in other subsidiaries.

Liquidity ratios

- The meaning of liquidity
- Current ratio
- Quick ratio or acid test ratio
- Liquidity ratios and consolidated accounts

4 Liquidity ratios

4.1 The meaning of liquidity

Liquidity means having cash or access to cash readily available to meet obligations to make payments

For the purpose of ratio analysis, liquidity is measured on the assumption that the only sources of cash available are:

- cash in hand or in the bank, plus
- current assets that will soon be converted into cash during the normal cycle of trade.

It is also assumed that the only immediate payment obligations faced by the entity are its current liabilities.

There are two ratios for measuring liquidity:

- current ratio
- quick ratio, also called the acid test ratio.

The more suitable ratio for use depends on whether inventory is considered a liquid asset that will soon be used or sold, and converted into cash from sales.

4.2 Current ratio

The current ratio is the ratio of current assets to current liabilities.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The amounts of current assets and current liabilities in the statement of financial position at the end of the year may be used. It is not necessary to use average values for the year.

It is sometimes suggested that there is an 'ideal' current ratio of 2.0 times (2:1).

However, this is not necessarily true and in some industries, much lower current ratios are normal. It is important to assess the liquidity ratios by considering:

- changes in the ratio over time

- the liquidity ratios of other companies in the same period
- the industry average ratios.

Liquidity should be monitored by looking at changes in the ratio over time.

4.3 Quick ratio or acid test ratio

The quick ratio or acid test ratio is the ratio of current assets excluding inventory to current liabilities. Inventory is excluded from current assets on the assumption that it is not a very liquid item.

$$\text{Quick ratio} = \frac{\text{Current assets excluding inventory}}{\text{Current liabilities}}$$

The amounts of current assets and current liabilities in the statement of financial position at the end of the year may be used. It is not necessary to use average values for the year.

This ratio is a better measurement of liquidity than the current ratio when inventory turnover times are very slow, and inventory is not a liquid asset.

It is sometimes suggested that there is an 'ideal' quick ratio of 1.0 times (1:1).

However, this is not necessarily true and in some industries, much lower quick ratios are normal. As indicated earlier, it is important to assess liquidity by looking at changes in the ratio over time, and comparisons with other companies and the industry norm.

4.4 Liquidity ratios and consolidated accounts

Liquidity ratios are more informative when they are calculated for individual companies. When liquidity ratios are calculated from a consolidated statement of financial position, they are average measures for all the companies in the group. The average liquidity ratios for the group might hide the fact that there may be poor liquidity in some of the subsidiaries in the group.

Debt ratios

- Gearing ratio (leverage)
- Accounting for sales tax

5 Debt ratios

Debt ratios are used to assess whether the total debts of the entity are within control and are not excessive.

5.1 Gearing ratio (leverage)

Gearing, also called leverage, measures the total long-term debt of a company as a percentage of either:

- the equity capital in the company, or
- the total capital of the company.

$$\text{Gearing} = \frac{\text{Long - term debt}}{\text{Share capital and reserves}} \times 100\%$$

Alternatively:

$$\text{Gearing} = \frac{\text{Long - term debt}}{\text{Share capital and reserves} + \text{Long - term debt}} \times 100\%$$

It is usually appropriate to use the figures from the statement of financial position at the end of the year. However, a gearing ratio can also be calculated from average values for the year.

When there are preference shares, it is usual to include the preference shares within debt capital.

A company is said to be **high-g geared** or **highly-leveraged** when its debt capital exceeds its share capital and reserves. This means that a company is high-g geared when the gearing ratio is above either 50% or 100%, depending on which method is used to calculate the ratio.

A company is said to be **low-g geared** when the amount of its debt capital is less than its share capital and reserves. This means that a company is low-g geared when the gearing ratio is less than either 50% or 100%, depending on which method is used to calculate the ratio.

A high level of gearing may indicate the following:

- The entity has a high level of debt, which means that it might be difficult for the entity to borrow more when it needs to raise new capital.

- High gearing can indicate a risk that the entity will be unable to meet its payment obligations to lenders, when these obligations are due for payment.

The gearing ratio can be used to monitor changes in the amount of debt of a company over time. It can also be used to make comparisons with the gearing levels of other, similar companies, to judge whether the company has too much debt, or perhaps too little, in its capital structure.

Gearing and consolidated accounts

The gearing ratio for a group of companies is difficult to interpret, because the debt will be spread over several entities in the group.

When measuring gearing, the total capital or equity capital (the denominator in the ratio) should include non-controlling interests (minority interests).

5.2 Interest cover ratio

Interest cover measures the ability of the company to meet its obligations to pay interest.

$$\text{Interest cover} = \frac{\text{Profit before interest and tax}}{\text{Interest charges in the year}}$$

Profit before interest and taxation is calculated by adding the interest charges for the year to the figure for profit before taxation.

An interest cover ratio of less than 3.0 times is considered very low, suggesting that the company could be at risk from too much debt in relation to the amount of profits it is earning.



Example

You are given the following information about Company R:

At 31 December Year 6

	\$000
Total assets	5,800
Share capital	1,200
Reserves	2,400
	3,600
Long-term liabilities (Bank loans)	1,500
Current liabilities	700
	5,800

For the year to 31 December Year 6	\$000
Profit before interest and taxation	700
Interest	<u>(230)</u>
	470
Taxation	<u>(140)</u>
Profit after taxation	<u>330</u>

Required

Use this data to calculate:

- the gearing ratio at 31 December Year 6
- the interest cover in Year 6.

a**Answer**

$$\text{Gearing} = \frac{1,500}{3,600} \times 100\% = 41.7\%$$

Alternatively:

$$\text{Gearing} = \frac{1,500}{(3,600 + 1,500)} \times 100\% = 29.4\%$$

(The company is fairly low-g geared.)

$$\text{Interest cover} = \frac{700}{230} = 3.04 \text{ times}$$

(This is fairly low.)

Investor ratios

- Earnings per share (EPS)
- Price earnings ratio (P/E ratio)
- Dividend yield
- Dividend cover

6 Investor ratios

Investor ratios are of interest to investors in shares and bonds and their advisers. Some of these measure stock market performance. Earnings per share (EPS) and the price earnings ratio (P/E ratio) were described in an earlier chapter.

6.1 Earnings per share (EPS)

EPS is normally viewed as a key measure of an entity's financial performance. It measures the profit earned for each equity share of the entity.

Basic EPS is calculated as follows:

$$\text{Earnings per share} = \frac{\text{Profits attributable to ordinary shareholders}}{\text{Number of shares}}$$

6.2 Price-earnings ratio (P/E ratio)

The price/earnings (P/E) ratio measures how expensive or cheap a share is in relation to its annual earnings. A P/E ratio of 10, for example, means that investors are prepared to pay a price for the share equal to 10 years of earnings (at the level of EPS in the previous year). A high P/E ratio is usually a sign of confidence in an entity, because it suggests that its earnings are expected to grow in future years. A low P/E ratio usually means that an entity's future prospects for EPS growth are expected to be poor, so that investors do not put a high value on the shares.

The P/E ratio is calculated as follows:

$$\text{P/E ratio} = \frac{\text{Current market price per share}}{\text{Earnings per share}}$$

6.3 Dividend yield

The dividend yield measures the dividend paid by an entity in relation to its price. It is calculated as follows:

$$\text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Current market price per share}} \times 100\%$$

This is a measure of the return that a shareholder can obtain (the dividend received) in relation to the current value of the investment in the shares (the price of the shares). A high dividend yield might seem attractive to investors, but in practice companies with a high dividend yield might have a relatively low share price.

There are two things to note:

- Dividend yield reflects the dividend policy of the entity, not its actual performance. Management decides on the amount of the dividend and this may not only depend on earnings, but on the amount that must be retained for future investment in EPS growth.
- The ratio is based on the most recent dividend, but the current share price may move up and down in response to the market's expectations about future dividends. This may lead to distortion in the ratio.

6.4 Dividend cover

The dividend cover ratio measures the number of times that an entity's dividends are 'covered' by profits (how many times an entity could pay the current level of dividend from its available profits).

It is calculated as follows:

$$\text{Dividend cover} = \frac{\text{Earnings per share}}{\text{Dividend per share}} \text{ or } \frac{\text{Profit before dividends}}{\text{Dividends}}$$

A low dividend cover (for example, less than 2), suggests that dividends may be cut if there is a fall in profits.

Example

The following amounts relate to Entity Q.

The current market price of its equity shares is \$5.50 per share.

Profit for the most recent period was \$1.4 million and equity dividends paid were \$450,000.

There are 1.2 million \$1 equity shares in issue.

$$\text{Earnings per share} = \frac{1,400,000}{1,200,000} = \$1.17.$$

$$\text{P/E ratio} = \frac{5.50}{1.17} = 4.7$$

$$\text{Dividend per share} = \frac{450,000}{1,200,000} = 0.38c$$

$$\text{Dividend yield} = \frac{0.38}{5.50} \times 100\% = 6.9\%$$

$$\text{Dividend cover} = \frac{1,400,000}{450,000} = 3.1 \text{ times or } \frac{1.17}{0.38} = 3.1 \text{ times}$$

Limitations of interpretation techniques

- Differences in accounting policy
- Current cost accounts and current purchasing power accounts
- Other limitations in the use of financial ratios
- Using historical information
- Creative accounting
- Related party relationships and transactions
- Using figures in the statement of financial position
- Non-financial information

7 Limitations of interpretation techniques

There are several limitations or weaknesses in the use of interpretation techniques for analysing the financial position and financial performance of companies. Some of these are limitations of ratio analysis (the method of interpretation most often used) and some are limitations of financial statements and financial information.

7.1 Differences in accounting policy

One of the uses of financial ratios is to compare the financial position and performance of one company with those of similar companies for the same period.

Comparisons between companies might not be reliable, however, when companies use different accounting policies, or have different judgements in applying accounting policies or making accounting estimates. For example:

- Entities might have different policies about the revaluation of non-current assets.
- Entities might use different methods of depreciation.
- Entities might use different judgements in estimating the expected profitability on incomplete construction contracts.
- Entities might use different judgements in assessing whether a liability should be treated as a provision or a contingent liability.

IAS 8 states that an entity should not change its accounting policies unless the change is required by an accounting standard or it will result in more relevant and reliable information. Therefore changes should not happen often.

Where there has been a change in an accounting policy, IAS 8 also requires comparative figures to be restated and information to be disclosed. However, changes in accounting policies and accounting estimates can still make it difficult to compare the financial statements of an entity over time, particularly if analysis is based on extracts rather than the full published financial statements.

7.2 Current cost accounts and current purchasing power accounts

Historical cost accounts can also be misleading because they do not accurately show the effects of inflation over time. They do not take into consideration changes in the real value of money.

The biggest problem is the valuation of non-current assets. Companies have different policies towards the revaluation of non-current assets. Some companies re-value some categories of non-current assets regularly, and in particular land and buildings. However, not all categories of non-current assets are re-valued.

When the rate of inflation is quite high, many non-current assets are probably under-valued in the financial statements, in comparison with their current net replacement value.

In addition, when the rate of inflation is high, the reported profit with historical cost accounting will be higher than it would be using an 'inflation accounting' system such as current cost accounting (CCA) or current purchasing power (CPP) accounting.

With CCA and CPP accounting, particularly during a period of high inflation:

- The reported profit will be less (or the loss will be higher) than with historical cost accounting (HCA).
- The asset turnover or asset utilisation will be lower, because asset valuations are higher with CCA and CPP than with historical cost accounting (even when some non-current assets are re-valued in HCA).
- The return on capital employed will be lower, because the reported profit will be lower and the value of capital employed will be higher.

7.3 Other limitations in the use of financial ratios

There are other problems with the use of financial ratios, particularly where these are used to compare the performance and position of different entities or of an entity with an industry average.

- It is possible to calculate the same ratio in different ways. For example, there are several variations of return on capital employed (ROCE) and gearing. Comparisons can be misleading if different calculations are used.
- Even where two entities operate in the same industry, comparisons can be misleading. Entities can operate in different markets (for example, high volume/low margin sales and low volume/high margin sales). The size of an entity can affect the way it operates and therefore its ratios. For example, large entities can often negotiate more favourable terms with suppliers than small ones.
- Financial statements are published infrequently. If ratios are used to study trends and developments over time, they are only useful for trends or changes over one year or longer, and not changes in the short term.
- Ratios can only indicate **possible** strengths or weaknesses in financial position and financial performance. They might raise questions about performance, but

do not provide answers. They are not easy to interpret, and changes in financial ratios over time might not be easy to explain.

It can be argued that financial position and financial performance should be analysed using market values rather than accounting values. For example, it can be argued that investment yield is more relevant for the assessment of financial performance than return on capital employed.

7.4 Using historical information

Financial statements are often used to predict the future performance of an entity. Where comparative figures are available for several years it may be possible to extrapolate trends and to base forecasts on these. If comparative figures are only available for one or two years, predictions may be unreliable.

There may be some limited information about future transactions in the notes to the financial statements. For example, details of contingent liabilities and non-adjusting events after the reporting period must be disclosed. However, published financial statements present historical information.

Generally, financial statements do not reflect future transactions or events. They do not anticipate the effect of significant changes to the entity after the financial statements have been authorised for issue. These may include events beyond the control of management (for example, the liquidation of a major customer) or events that could not possibly have been foreseen at the time the most recent financial statements were issued.

It should also be remembered that financial statements are not normally published until several months after the year end. The financial statements are often out of date by the time that they become available.

7.5 Creative accounting

Management may use various forms of **creative accounting** to manipulate the view given by the financial statements while complying with all applicable accounting standards and regulations.

Some of the techniques that can be used have been discussed in earlier chapters. They include:

- **Window dressing:** an entity enters into a transaction just before the year end and reverses the transaction just after the year end. For example, goods are sold on the understanding that they will be returned immediately after the year end; this appears to improve profits and liquidity. The only reason for the transaction is to artificially improve the view given by the financial statements.
- **'Off balance sheet' finance:** transactions are deliberately arranged so as to enable an entity to keep significant assets and particularly liabilities out of the statement of financial position (= 'off balance sheet'). This improves gearing and return on capital employed. Examples include sale and repurchase agreements and some forms of leasing.

- **Changes to accounting policies or accounting estimates:** for example, an entity can revalue assets (change from the cost model to the revaluation model) to improve gearing or change the way in which it depreciates assets to improve profits.
- **Profit smoothing:** manipulating reported profits by recognising (usually) artificial assets or liabilities and releasing them to profit or loss as required.
- **Aggressive earnings management:** artificially improving earnings and profits by recognising sales revenue before it has been earned.
- **Capitalising expenses:** recognising 'assets' which do not meet the definition in the IASB Framework or the recognition criteria. Examples include: human resources, advertising expenditure and internally generated brand names.

Most of these are now effectively prevented by accounting standards. However, management may still attempt 'creative accounting', especially if the entity is suffering falling profits or poor cash flow.

If directors' salaries or bonuses are based on profits or on particular measures, (such as earnings per share), they may try to manipulate that particular measure so that it is as favourable to them as possible.

7.6 Related party relationships and transactions

A user of financial statements will normally expect the financial statements to reflect transactions that have taken place on normal commercial terms ('at arm's length'). The user of the financial statements would want to be informed if:

- transactions have taken place that were not at 'arm's length', or
- there are parties that could enforce transactions on the entity that are not on an 'arm's length' basis.

For example, an entity might sell an asset such as a property to another company owned by one of its directors on more favourable terms than it would sell to a third party.

In this situation, the financial performance or financial position reported by the financial statements would be misleading. There is a special relationship between the parties to the business transactions. This is referred to as a 'related party relationship'.

Related parties of an entity can include:

- parents, subsidiaries and fellow subsidiaries
- associates
- key management personnel (such as directors)
- close family members of any of the above.

A **related party transaction** is:

- a transfer of resources, services, or obligations between related parties
- whether or not a price is charged.

Examples of related party transactions include:

- purchases or sales of goods
- purchases or sales of property and other assets
- rendering or receiving of services
- leases
- finance arrangements (such as loans or contributions to equity).

Related party relationships and transactions are a normal part of business and there is nothing wrong with entering into them. However, a related party relationship can have an effect on the profit or loss, or on the financial position of an entity, because related parties might enter into transactions with each other on terms that other entities or individuals (unrelated parties) would not. For example, where an entity sells goods to a related party, its profits may not be comparable with those of a similar entity that only trades with third parties on normal commercial terms.

7.7 Using figures in the statement of financial position

In practice, ratio calculations are often based on figures in the year-end statement of financial position. These may be very similar to average values for the period, but this is not always the case.

Some businesses are seasonal and make a high proportion of their sales at a specific time of year (for example, in the few months before a national holiday period). Seasonal businesses often arrange their year-ends so that they fall when inventories and receivables are at their lowest (probably just after the main period for sales). Where this happens, ratios such as inventory turnover will be lower than they would be if they were based on the average figure for the year. This means that ratios may not be strictly comparable with those of other businesses or with industry averages.

Major purchases of assets can have a significant effect on figures in the statement of financial position and on ratios if they take place near the end of the accounting period.

- The carrying value of non-current assets is unusually high, because cost has increased, but a full year's depreciation has not been charged.
- Return on capital employed and asset turnover are reduced, because assets have increased but revenue and profits have not. New assets should generate increased profits, but they have not yet been owned for long enough to do so.

7.8 Non-financial information

One of the most serious limitations of traditional financial statements is that they only reflect the financial effects of transactions. Items are not recognised unless they can be measured reliably in money terms.

There are two problems here:

- Businesses and the transactions that they enter into are becoming increasingly complex. Much information that is relevant to users cannot be expressed easily in monetary terms or in numbers.
- Businesses increasingly accept that they are not only accountable to investors and lenders, but to a much wider group of people, or 'stakeholders'. Stakeholders can include customers, suppliers, employees, the local community as a whole and (for some large public entities) society as a whole. These groups are often more interested in the non-financial effects of an entity's activities, (for example, its effect on the natural environment), than in its financial performance.

Most large and listed entities now include a Business Review, an Operating and Financial Review (sometimes called Management Discussion and Analysis) in their published financial statements. This is a narrative report which sets out management's analysis of the business. Such a review is a legal requirement for many companies within the European Union.

At present entities reporting under IFRSs do not have to publish any non-financial information of this kind. The IASB is currently developing proposals for a standard on non-financial information, but this is unlikely to come into force for several years. However, companies will publish narrative reviews if they are required to do so by national law.

Useful non-financial information

Useful non-financial information could include the following:

- a description of the business, objectives and strategies of the entity
- a narrative review of the performance of the business during the period
- a description of the main risks and uncertainties facing the entity and the ways in which these risks are managed
- details of any significant factors or events that may have an impact on the entity's performance in future
- details of any significant factors or events that may have an impact on the entity's cash flows in future
- information about key relationships with other entities and transactions with related parties, including management
- a description of the entity's research and development activities (if any) and of any material intangible assets, including internally generated intangible assets that have not been recognised in the balance sheet
- additional explanations of amounts included in the financial statements, where appropriate (for example, where these are based on estimates)
- information about the entity's policies in relation to environmental matters, in relation to its employees and on social and community issues.

Specialised, not-for-profit and public sector entities

- Interpretation and specialised entities
- Users of the financial statements
- The needs of users
- Non-financial ratios

8 Specialised, not-for-profit and public sector entities

Specialised, not-for-profit and public sector entities were discussed in an earlier chapter.

The main objective of these entities is not to make a profit, but to carry out a specific activity.

8.1 Interpretation and specialised entities

All not-for-profit entities prepare financial statements. These may not be structured and presented in the same way as those of a profit-making entity, but most of the interpretation techniques described above are still relevant.

As usual, the starting point is the needs of the user.

- What do they need to know?
- What are they most interested in?
- What decision (if any) do they need to make?

8.2 Users of the financial statements

Several different groups of people may be interested in the financial statements, including:

- members (of a club or society)
- donors and potential donors (to a charity)
- those who benefit or could benefit from the activities of the entity
- lenders
- the general public, as voters, as taxpayers or in some other capacity
- central government (in the case of other public sector bodies)
- employees and others involved in the work of the entity
- pressure groups.

The most important users of the financial statements are likely to be either:

- providers of finance or potential providers of finance; or
- persons to whom the entity's management are accountable for the way in which money and other resources are used.

8.3 The needs of users

Users of the financial statements of a not-for-profit entity are almost always interested in the way that the entity manages and uses its resources.

For example:

- A charity may be managed by Trustees on behalf of its supporters and those who benefit from its activities.
- A public sector organisation is managed by elected officials on behalf of the general public.

Typically, users will want to know whether:

- the entity has enough finance to achieve its objectives
- the money raised is being spent on the activities for which it was intended
- the public are receiving value for money (in the case of a public sector entity)
- services are being provided economically, efficiently and effectively (in the case of a public sector entity)
- the level of spending is reasonable in relation to the services provided.

8.4 Non-financial ratios

Most of the ratios covered earlier in this chapter could be relevant to a not-for-profit entity.

However, a public sector entity may also use non-financial ratios. These measure the efficiency with which services have been provided.

Examples include:

- the average time that hospital patients wait for treatment
- the number of schools built in an area
- serious crimes per 1,000 of the population
- number of complaints by members of the public in a given period
- number of visits made to museums and art galleries in an area.



Answers to exercises

Chapter 5: The financial statements of a single company

Exercise 1

Entity Red

Income statement for the year ended 30 June 20X5

	\$000
Revenue	14,823
Cost of sales	<u>6,214</u>
Gross profit	8,609
Other income	22
Distribution costs	(3,693)
Administrative expenses	(3,901)
Other expenses	<u>(248)</u>
Profit before tax	<u>789</u>

Exercise 2

Entity Red

Income statement for the year ended 30 June 20X5

	\$000	\$000
Revenue		14,823
Other income		<u>22</u>
		14,845
Changes in inventories of finished goods and work-in-progress (reduction = expense, increase = negative expense)	(86)	
Raw materials and consumables used	5,565	
Staff costs (employee benefits costs)	4,926	

Depreciation and amortisation expense	1,533	
Other operating expenses	<u>2,118</u>	14,056
Profit before tax		<u>789</u>

Chapter 11: Financial assets and financial liabilities

Exercise 1

Entity GH	\$	\$
Assets		
Non-current assets		2,000,000
Current assets		
Inventories	56,000	
Receivables	102,000	
Tax benefit receivable	15,000	
Cash ((250,000 at \$3) – 40,000 issue costs) less former overdraft	610,000	
	<u> </u>	783,000
Total assets		<u>2,783,000</u>
Equity and liabilities		
Equity		
1,250,000 ordinary shares of \$0.50	625,000	
Share premium (240 + (250 × \$2.50) – 25)	840,000	
Retained earnings	<u>1,068,000</u>	2,533,000
Current liabilities		
Trade payables	250,000	<u>250,000</u>
Total equity and liabilities		<u>2,783,000</u>

Q&A

Practice questions

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1 Definitions

“A statement of financial position is a snapshot of a business at a point in time. It shows the assets that an entity owns and the liabilities that it owes. This is all that is required to convey a business’s performance, position and adaptability.

As income generated and expenses incurred by a business are already reflected within the assets and liabilities shown in the statement of financial position, an income statement is a superfluous statement.”

Required

Briefly appraise the validity of the above statement, defining the words underlined.

(Note: The term ‘income statement’ should be taken to mean the section of the statement of comprehensive income that reports the profit or loss for the reporting period.)

2 Carrie

Carrie starts in business on 1 January Year 1. Carrie’s sole shareholder contributed capital of \$1,000. Carrie purchased one item of inventory for \$1,000 and sold that inventory for cash of \$1,400. At the end of Year 1 the replacement cost of the same item of inventory is \$1,100. General inflation during the year was 7%.

Required

Calculate the profit for the year and set out a summary statement of financial position as of 31 December Year 1 under the following capital maintenance concepts.

- (a) Physical capital maintenance
- (b) Financial capital maintenance
 - (i) Historical cost accounting
 - (ii) Constant purchasing power accounting

3 David

David manufactures and sells machines. Customers are required to pay a deposit of 10% on order. The remaining 90% is paid on delivery.

Machines are delivered to customers by a third party. Within one week after delivery, David’s employees install the machines on customers’ premises. Installation costs are negligible and installation is straightforward.

Fees for after sales support and servicing for three years, amounting to 5% of the total sales price, are included in the final invoice.

Required

Using the sale of a single machine with a selling price of \$100,000 as an example, state how the above should be treated in accordance with IAS18.

4 Peter

The following transactions took place at Peter in the year ended 31 March Year 3.

- (1) On 5 March Peter sold goods to a bank for \$18,000 cash and agreed to repurchase the goods for \$20,000 cash on 5 April Year 3.
- (2) Peter entered into a factoring arrangement in respect of \$22,000 of trade receivables outstanding on 31 March Year 3. Peter received cash for 75% of the face value of the receivables on that date. Peter will receive a further 24% in respect of receivables paying in April, 23% for those paying in May, with the amount decreasing at 1% per month thereafter. The factor has recourse to Peter for any bad debts.
- (3) On 31 March Peter's car manufacturing division consigned several vehicles to independent dealers for sale to third parties. The sales price to the dealer is Peter's list price at the date of sale to third parties. If a vehicle is unsold after six months, the dealer has a right to return the vehicle to Peter.
- (4) On 31 March Peter sold a machine held in tangible non-current assets at a carrying value of \$467,000 to Anthony for \$550,000. Peter immediately leased the machine back under a finance lease.

Required

Discuss how the above transactions should be accounted for in the financial statements of Peter for the year ended 31 March Year 3.

5 Larry

The trial balance of Larry at 31 December Year 1 is as follows.

	\$000	\$000
Administration charges	342	
Bank account	89	
Cash	2	
Payables' ledger		86
Accumulated amortisation on patents at 31 December Year 1		5
Accumulated depreciation at 31 December Year 1		918
Receivables' ledger	189	
Distribution expenses	175	
Property, plant and equipment at cost	2,830	
Interest received		20
Issued share capital		400
Loan		18
Patents at cost	26	
Accumulated profits		1,562
Purchases	2,542	
Sales		3,304
Inventories at 31 December Year 0	118	
	6,313	6,313

The following information is also relevant.

- (1) Inventories on 31 December Year 1 amounted to \$127,000.
- (2) Current tax of \$75,000 is to be provided.
- (3) The loan is repayable by equal annual instalments over three years.

Required

Prepare an income statement (analysing expenses by function) for the year ended 31 December Year 1 and a statement of financial position as at that date. Work to the nearest \$000.

6 Barry

Barry is a manufacturer of computer games. The following is his trial balance at 31 December Year 4.

	\$000	\$000
Patent rights	60	
Work-in-progress, 1 January Year 4	125	
Leasehold buildings at cost	300	
Ordinary share capital		600
Sales		1,740
Staff costs	260	
Accumulated depreciation on buildings, 1 January Year 4		60
Inventories of finished games, 1 January Year 4	155	
Consultancy fees	44	
Directors' salaries	360	
Computers at cost	50	
Accumulated depreciation on computers, 1 January Year 4		20
Dividends paid	125	
Cash	440	
Receivables	420	
Trade payables		92
Sundry expenses	294	
Accumulated profits, 1 January Year 4		121
	2,633	2,633

The following information is also relevant.

- (1) Closing inventories of finished games are valued at \$180,000. Work in progress has increased to \$140,000.
- (2) The patent rights relate to a computer program with a three year lifespan.
- (3) On 1 January Year 4 buildings were revalued to \$360,000. This has not yet been reflected in the accounts. Computers are depreciated over five years. Buildings are now to be depreciated over 30 years.
- (4) An allowance for bad debts (irrecoverable debts) of 5% is to be created.
- (5) There is an estimated bill for current tax of \$120,000 which has not yet been accounted for.

Required

Prepare an income statement (analysing expenses by nature) and a statement of changes in equity for the year ended 31 December Year 4 and a statement of financial position as at that date. Work to the nearest \$000.

7 Duncan

Duncan Company has previously written off any expenditure on borrowing costs in the period in which it was incurred. It has now decided to change its accounting policy, as allowed by IAS23 Borrowing costs, to one of capitalisation where the costs relate to the construction of a qualifying asset.

The financial statements for Year 1 and the Year 2 draft financial statements, both reflecting the old policy, show the following.

Statement of changes in equity (extract)

	Year 1	Year 2
	Retained earnings	Retained earnings
	\$000	\$000
Opening balance	22,500	23,950
Profit after tax for the period	3,200	4,712
Dividends paid	(1,750)	(2,500)
Closing balance	<u>23,950</u>	<u>26,162</u>

Borrowing costs written off were \$500,000 in Year 1 and \$600,000 in Year 2.

The directors have calculated that borrowing costs, net of depreciation which would have been included in property, plant and equipment had the new policy been applied, are as follows.

	\$000
At 30 December Year 0	400
At 31 December Year 1	450
At 31 December Year 2	180

Had the new policy been in force depreciation of \$450,000 would have been charged in Year 1 and \$870,000 in Year 2.

Required

Show how the change in accounting policy will be reflected in the statement of changes in equity for the year ended 31 December Year 2. Work to the nearest \$000.

8 Saul

Saul operates its business through a number of divisions. It has a year end of 31 December. Set out below are extracts from the draft financial statements of Saul for the year ended 31 December Year 1.

Income statement for the year ended 31 December Year 1

	\$000
Revenue	3,900
Cost of sales	(2,500)
Gross profit	1,400
Distribution costs	(300)
Administrative expenses	(800)
Profit before tax	300
Income tax expense	(90)
Profit for the period	210

Statement of financial position at 31 December Year 1

Assets	\$000	\$000
Non-current assets		
Property, plant and equipment	1,900	
Intangible assets	40	
	<u> </u>	1,940
Current assets		
Inventories	350	
Trade and other receivables	190	
Cash	90	
	<u> </u>	630
Total assets		<u>2,570</u>
Equity and liabilities		
Equity		
Share capital	600	
Retained earnings	1,700	
	<u> </u>	2,300
Current liabilities		
Trade and other payables	195	
Current tax payable	75	
	<u> </u>	270
Total equity and liabilities		<u>2,570</u>

On 30 November Year 1 Saul made the decision to close Division A, which is located in a different part of the country and covers a separate major line of business. This decision was immediately announced to the press and to the workforce and, by the end of Year 1, a buyer had been found.

The directors of Saul have calculated the following.

- 15% of the entity's income and expenses for the year was attributable to Division A.
- No tax is attributable to Division A.

- Property, plant and equipment of \$510,000 and payables of \$10,000 in the above statement of financial position relate to Division A. The fair value minus costs to sell of the property, plant and equipment is \$450,000.

Required

Redraft the above financial statements to meet the provisions of IFRS5 Non-current assets held for sale and discontinued operations. Work to the nearest \$000.

9 Richard

On 1 January Year 1 Richard had the following capital and reserves.

Equity	\$000
Share capital (\$1 ordinary shares)	2,000
Share premium	600
Capital reserve	500
Revaluation reserve	560
Retained earnings	460
	<u>4,120</u>

During Year 1 Richard

- made a loss after tax of \$75,000
- revalued a non-current asset with a carrying value of \$260,000 to \$350,000
- issued 300,000 ordinary shares for \$1.50 each
- paid a dividend of \$145,000.

Required

Prepare a statement of changes in equity for Richard for the year ended 31 December Year 1.

10 Carly

The following is an extract from the financial statements of Carly on 31 December Year 0.

Property, plant and equipment

	Land and buildings	Plant and equipment	Computer s	Total
	\$	\$	\$	\$
Cost				
On 31 December Year 0	<u>1,500,000</u>	<u>340,500</u>	<u>617,800</u>	<u>2,458,300</u>
Accumulated depreciation				
On 31 December Year 0	<u>600,000</u>	<u>125,900</u>	<u>505,800</u>	<u>1,231,700</u>
Carrying amount				
On 31 December Year 0	<u>900,000</u>	<u>214,600</u>	<u>112,000</u>	<u>1,226,600</u>

Accounting policies

Depreciation

Depreciation is provided at the following rates.

- On land and buildings – 2% per annum straight line on buildings only
- On plant and equipment – 25% reducing balance
- On computers – 33.33% per annum straight line

A full year's depreciation is charge in the year of purchase and none in the year of sale."

During Year 1 the following transactions took place.

- (1) On 31 December the land and buildings were revalued to \$1,750,000. Of this amount, \$650,000 related to the land (which had originally cost \$500,000). The remaining useful life of the buildings was assessed as 40 years.
- (2) A machine which had cost \$80,000 and had accumulated depreciation of \$57,000 at the start of the year was sold for \$25,000.
- (3) A new machine was purchased, incurring the following costs.

	\$
Purchase price, before discount, inclusive of reclaimable sales tax of \$3,000	20,000
Discount	1,000
Delivery costs	500
Installation costs	750
Interest on loan taken out to finance the purchase	300

- (4) On 1 January it was decided to change the method of providing depreciation on computer equipment from the existing method to 40% reducing balance.

Required

Produce the analysis of property, plant and equipment as it would appear in the financial statements of Carly for the year ended 31 December Year 1. Ignore taxation.

11 Katie

During the year ended 30 June Year 2, Katie received three grants, the details of which are set out below.

- (1) On 1 September, a grant of \$40,000 from local government. This grant was in respect of training costs of \$70,000 which Katie had incurred.
- (2) On 1 November Katie bought a machine for \$350,000. A grant of \$100,000 was received from central government in respect of this purchase. The machine, which has a residual value of \$50,000, is depreciated on a straight-line basis over its useful life of five years.
- (3) On 1 June a grant of \$100,000 from local government. This grant was in respect of relocation costs that Katie had incurred moving part of its business from outside the local area. The grant is repayable in full unless Katie recruits ten employees locally by the end of Year 2. Katie is finding it difficult to recruit as the local skill base does not match the needs of this part of the business.

Required

Show how the above transactions should be reflected in the financial statements of Katie for the year ended 30 June Year 2. Where any accounting standards allow a choice you should show all possible options.

12 Victoria

Victoria owns several properties and has a year end of 31 December. Wherever possible, Victoria carries investment properties under the fair value model.

Property 1 was acquired on 1 January Year 1. It had a cost of \$1 million, comprising \$500,000 for land and \$500,000 for buildings. The buildings have a useful life of 40 years. Victoria uses this property as its head office.

Property 2 was acquired many years ago for \$1.5 million for its investment potential. On 31 December Year 7 it had a fair value of \$2.3 million. By 31 December Year 8 its fair value had risen to \$2.7 million. This property has a useful life of 40 years.

Property 3 was acquired on 30 June Year 2 for \$2 million for its investment potential. The directors believe that the fair value of this property was \$3 million on 31 December Year 7 and \$3.5 million on 31 December Year 8. However, due to the specialised nature of this property, these figures cannot be corroborated. This property has a useful life of 50 years.

Required

- (a) For each of the above properties briefly state how it would be treated in the financial statements of Victoria for the year ended 31 December Year 8, identifying any impact on profit or loss.
- (b) Produce an analysis of property, plant and equipment for Victoria for the year ended 31 December Year 8, showing each of the above properties separately.

13 Henry

During Year 2 Henry has the following research and development projects in progress.

Project A was completed at the end of Year 1. Development expenditure brought forward at the beginning of Year 2 was \$412,500 on this project. Savings in production costs arising from this project are first expected to arise in Year 2. In Year 2 savings are expected to be \$100,000, followed by savings of \$300,000 in Year 3 and \$200,000 in Year 3.

Project B commenced on 1 April Year 2. Costs incurred during the year were \$56,000. In addition to these costs a machine was purchased on 1 April Year 2 for \$30,000 for use on the project. This machine has a useful life of five years. At the end of Year 2 there were still some uncertainties surrounding the completion of the project.

Project C had been started in Year 1. In Year 1 the costs relating to this project of \$36,700 had been written off, as at the end of Year 1 there were still some

uncertainties surrounding the completion of the project. Those uncertainties have now been resolved and a further \$45,000 costs incurred during the year.

Required

Show how the above would appear in the financial statements (including notes to the financial statements) of Henry as of 31 December Year 2.

14 Toby

Toby entered into the following transactions during the year ended 31 December Year 1. The directors of Toby wish to capitalise all assets wherever possible.

- (1) On 1 January Toby acquired the net assets of George for \$105,000. The assets acquired had the following book and fair values.

	Book value	Fair value
	\$	\$
Goodwill	5,000	5,000
Patents	15,000	20,000
Non-current assets	40,000	50,000
Other sundry net assets	30,000	25,000
	90,000	100,000

The patent expires at the end of Year 8. The goodwill arising from the above had a recoverable value at the end of Year 1 of \$7,000.

- (2) On 1 April Toby acquired a brand from a competitor for \$50,000. The directors of Toby have assessed the useful life of the brand as five years.
- (3) During the year Toby spent \$40,000 on developing a new brand name. The development was completed on 30 June. The useful life of this brand has been assessed as eight years.
- (4) The directors of Toby believe that there is total goodwill of \$2 million within Toby and that this has an indefinite useful life.

Required

Prepare the note to the financial statements for intangible assets as at 31 December Year 1.

15 Charlotte

The following is relevant to three tangible non-current assets held by Charlotte.

Machine 1 was purchased on 1 January Year 1 for \$420,000. It had an estimated residual value of \$50,000 and a useful life of ten years and was being depreciated on a straight-line basis. On 1 January Year 6 Charlotte revalued this machine to \$275,000 and reassessed its total useful life as fifteen years. On 1 January Year 7 an impairment review showed machine 1's recoverable amount to be \$100,000 and its remaining useful life to be five years.

Machine 2 was purchased on 1 January Year 1 for \$500,000. It had an estimated residual value of \$60,000 and a useful life of ten years and was being depreciated on a straight-line basis. On 1 January Year 7 this machine was classified as held for sale, at which time its fair value was estimated at \$200,000 and costs to sell at \$5,000. On 31 March Year 7 the machine was sold for \$210,000.

Machine 3 was purchased on 1 January Year 1 for \$600,000. In Year 1 depreciation of \$30,000 was charged. On 1 January Year 2 this machine was revalued to \$800,000 and its remaining useful life assessed as eight years. On 1 January Year 7 this machine was classified as held for sale, at which time, its fair value was estimated at \$550,000 and costs to sell at \$5,000. On 31 March Year 7 the machine was sold for \$550,000.

Tax is at the rate of 30%.

Required

For each machine show the effect of the above on profit or loss, other comprehensive income and revaluation reserve of Charlotte in Year 7. You should also show the brought forward balance on the revaluation reserve (at 1 January Year 7) in respect of machines 1 and 3.

Henrietta was formed on 1 January Year 1. The entity manufactures and sells a single product and values it on a first-in, first-out basis. The following details relate to Year 1.

16 Henrietta

Purchases of raw materials

Purchases:	1,000 tonnes of raw materials per week
Price:	\$100 per tonne on 1 January, increasing to \$150 per tonne on 1 July
Import duties:	\$10 per tonne
Transport from docks to factory:	\$20 per tonne

Production costs

Production capacity:	1,500 tonnes per week
Variable costs:	\$25 per tonne
Fixed costs:	\$30,000 per week

Sales details

Selling price:	\$240 per tonne
Delivery costs to customers:	\$8 per tonne
Selling costs:	\$4 per tonne

Inventories at 31 December Year 1

Raw materials:	2,000 tonnes
Finished goods:	2,000 tonnes

Required

Calculate and disclose the value of inventories on 31 December Year 1 in accordance with IAS2.

17 Anabelle

On 31 March Year 5 Anabelle had four construction contracts in progress. Details are set out below.

	Contract A	Contract B	Contract C	Contract D
	\$000	\$000	\$000	\$000
Contract price	1,850	750	960	800
Costs to date	1,490	590	405	120
Estimated future costs	-	25	600	480
Work certified at 31 March Year 5	1,850	695	480	120
Profits taken in earlier years	190	-	-	-
Revenue taken in earlier years	990	100	-	-
Progress billings to date	1,850	690	650	100
Cash received to date	1,850	600	600	100

All contracts are expected to take more than 12 months to complete. Contract A was completed during the year. Contract C commenced on 1 May Year 4. Contract D commenced on 1 January Year 5. It is not considered possible on 31 March Year 5 to assess the outcome of Contract D with any certainty.

Anabelle recognises revenue in respect of construction contracts on the percentage of completion basis, based on the proportion of total costs incurred to date.

Required

Show how the above would be included or disclosed in the financial statements of Annabelle for the year ended 31 March Year 5. Work to the nearest \$000.

18 Michael

On 1 January Year 1 Michael has the following capital and reserves.

Equity	\$
Share capital (\$1 ordinary shares)	1,000,000
Share premium	200,000
Retained earnings	5,670,300
	6,870,300

During Year 1 the following transactions took place.

- 1 January An issue of \$100,000 8% \$1 redeemable preference shares at a premium of 60%. Issue costs are \$2,237. Redemption is at 100% premium on 31 December Year 5. The effective rate of interest is 9.5%.
- 31 March An issue of 300,000 ordinary shares at a price of \$1.30 per share. Issue costs, net of tax benefit, were \$20,000
- 30 June A 1 for 4 bonus issue of ordinary shares.

Profit for the year, before accounting for the above, was \$508,500. The dividends on the redeemable preference shares have been charged to retained earnings.

Required

Set out capital and reserves and liabilities resulting from the above on 31 December Year 1.

19 Finley

On 1 January Year 4, Finley entered into an agreement to lease a boat. The fair value of the boat was \$36,000 and the term of the lease was four years. Annual lease payments of \$10,000 are payable in advance. The interest rate implicit in the lease is 7.5%. Finley is responsible for insuring and maintaining the boat throughout the term of the lease.

Required

Show how this lease would be presented in the income statement of Finley for the year ended 31 December Year 4 and the statement of financial position as at that date. Detailed disclosure notes are not required.

20 Fabian

In the year ended 31 December Year 7, Fabian leased two assets.

- (1) A car was leased on 1 July Year 7 via a three year lease agreement. Fabian paid a deposit of \$7,500 followed by 36 monthly payments of \$700 each on the 1st of each month. At the end of the three years Fabian will return the car. The car has a useful life of eight years.
- (2) A machine was leased on 1 January Year 7 via a four year lease. The machine has a fair value of \$130,000 and Fabian is responsible for its upkeep. Lease payments of \$40,000 are payable in arrears annually. The interest rate implicit in the lease is 10% and the present value of the minimum lease payments is \$126,760.

Required

Show how the two lease agreements would be presented in the income statement for Year 7 and the statement of financial position at 31 December Year 7. Notes to the financial statements are not required.

21 Georgina

Georgina Company is preparing its financial statements for the year ended 30 September Year 7. The following matters are all outstanding at the year end.

- (1) Georgina is facing litigation for damages from a customer for the supply of faulty goods on 1 September Year 7. The claim, which is for \$500,000, was

received on 15 October Year 7. Georgina's legal advisors consider that Georgina is liable and that it is likely that this claim will succeed. On 25 October Year 7 Georgina sent a counter-claim to its suppliers for \$400,000. Georgina's legal advisors are unsure whether or not this claim will succeed.

- (2) Georgina's sales director, who was dismissed on 15 September, has lodged a claim for \$100,000 for unfair dismissal. Georgina's legal advisors believe that there is no case to answer and therefore think it is unlikely that this claim will succeed.
- (3) Although Georgina has no legal obligation to do so, it has habitually operated a policy of allowing customers to return goods within 28 days, even where those goods are not faulty. Georgina estimates that such returns usually amount to 1% of sales. Sales in September Year 7 were \$400,000. By the end of October Year 7, prior to the drafting of the financial statements, goods sold in September for \$3,500 had been returned.
- (4) On 15 September Year 7 Georgina announced in the press that it is to close one of its divisions in January Year 8. A detailed closure plan is in place and the costs of closure are reliably estimated at \$300,000, including \$50,000 for staff relocation.

Required

State, with reasons, how the above should be treated in Georgina's financial statements for the year ended 30 September Year 7.

22 Olivia

The following information is relevant to the financial statements of Olivia for the year ended 31 March Year 8.

- (1) During the year Olivia made sales of \$5,570,500 and purchases of \$4,789,400, both net of government sales tax at 15%. During the year ended 31 March Year 8 Olivia paid \$113,700 in sales taxes.
- (2) Olivia made profit before tax for the year of \$345,900. Taxable profits were \$379,600. In addition to the settlement of the opening liability, during the year Olivia paid current tax on account of \$10,000. The current tax rate is 30%.
- (3) During the year Olivia received interest of \$30,000 on which tax of \$9,000 was withheld. Olivia paid interest of \$20,000 on which tax of \$6,000 was withheld.
- (4) The deferred tax provision at 31 March Year 8 has been calculated at \$35,500.

Liabilities on 1 April Year 7 included the following.

	\$
Government sales taxes	25,600
Current tax	15,500 (settled during the year at \$16,200)
Deferred tax	32,700

Required

Show how the above would be included or disclosed in the financial statements of Olivia for the year ended 31 March Year 8.

23 Francesca

On 30 June Year 2 Francesca Company had a credit balance on its deferred tax account of \$1,340,600 all in respect of the difference between depreciation and capital allowances.

During the year ended 30 June Year 3 the following transactions took place.

- (1) \$45 million was charged against profit in respect of depreciation. The tax computation showed capital allowances of \$50 million.
- (2) Interest receivable of \$50,000 was reflected in profit for the period. However, only \$45,000 of interest was actually received during the year. Interest is not taxed until it is received.
- (3) Interest payable of \$32,000 was treated as an expense for the period. However, only \$28,000 of interest was actually paid during the year. Interest is not an allowable expense for tax purposes until it is paid.
- (4) During the year Francesca incurred development costs of \$500,600, which it has capitalised. Development costs are an allowable expense for tax purposes in the period in which they are paid.
- (5) Land and buildings with a net book value of \$4,900,500 were revalued to \$6 million.

The tax rate is 30%. Francesca has a right of offset between its deferred tax liabilities and its deferred tax assets.

Required

Calculate the deferred tax liability on 30 June Year 3. Show where the increase or decrease in the liability in the year would be charged or credited.

24 Mary

On 1 January Year 5, Mary had 5 million ordinary shares in issue. The following transactions in shares took place during the next year.

1 February A 1 for 5 bonus issue

1 April A 1 for 2 rights issue at \$1 per share. The market price of the shares prior to the rights issue was \$4.

1 June An issue at full market price of 800,000 shares.

In Year 5 Mary made a profit before tax of \$3,362,000. It paid ordinary dividends of \$1,200,000 and preference dividends of \$800,000. Tax was \$600,500. The reported EPS for Year 4 was \$0.32.

Required

Calculate the EPS for Year 5, and the adjusted EPS for Year 4 for comparative purposes.

25 Mandy

Mandy has had 5 million shares in issue for many years. Earnings for the year ended 31 December Year 4 were \$2,579,000. Earnings for the year ended 31 December Year 3 were \$1,979,000. Tax is at the rate of 30%.

Outstanding share options on 500,000 shares have also existed for a number of years. These can be exercised at a future date at a price of \$3 per share. The average market price of shares in Year 3 was \$4 and in Year 4 was \$5.

On 1 April Year 3 Mandy issued \$1,000,000 convertible 7% bonds. These are convertible into ordinary shares at the following rates.

On 31 December Year 6	30 shares for every \$100 of bonds
On 31 December Year 7	25 shares for every \$100 of bonds
On 31 December Year 8	20 shares for every \$100 of bonds

Required

Calculate the diluted EPS for Year 4 and the comparative diluted EPS for Year 3.

26 Bella

The financial statements of Bella include the following.

Statements of financial position as at 31 March

	Year 6		Year 5	
	\$000	\$000	\$000	\$000
Assets				
Non-current assets				
Property, plant and equipment	12,900		8,000	
Intangible assets	800		300	
	<u> </u>	13,700	<u> </u>	8,300
Current assets				
Inventories	280		100	
Trade and other receivables	1,290		1,350	
Cash	55		45	
	<u> </u>	1,625	<u> </u>	1,495
Total assets		<u>15,325</u>		<u>9,795</u>
Equity and liabilities				
Equity				
Share capital (\$1 ordinary shares)	1,900		1,100	
Share premium	95		30	
Retained earnings	11,407		7,540	
	<u> </u>	13,402	<u> </u>	8,670

Non-current liabilities				
Long-term loans	600		500	
	<u>600</u>	600	<u>500</u>	500
Current liabilities				
Bank overdraft (repayable on demand)	313		-	
Trade and other payables	430		275	
Interest payable	40		25	
Current tax payable	540		325	
	<u>1,323</u>		<u>625</u>	
Total equity and liabilities		<u>15,325</u>		<u>9,795</u>

Income statement for the year ended 31 March Year 6 (extract)

	\$000
Profit from operations	4,677
Interest payable	<u>(60)</u>
Profit before tax	4,617
Income tax expense	<u>(400)</u>
Profit for the period	<u>4,217</u>

The following occurred during the year.

- (1) Dividends of \$350,000 were paid.
- (2) New plant was purchased for \$6 million.
- (3) Old plant which had a net book value of \$800,000 was sold for \$700,000.
- (4) Shares were issued.

Required

Prepare a statement of cash flows for the year ended 31 March Year 6 using the indirect method.

27 Chester

The financial statements of Chester include the following.

Statements of financial position as at 31 December

	Year 5		Year 4	
	\$000	\$000	\$000	\$000
Assets				
Non-current assets				
Property, plant and equipment		3,900		2,500
Current assets				
Inventories	480		320	
Interest receivable	40		20	

Trade receivables	560		570	
Cash	40		25	
		<u>1,120</u>	<u> </u>	935
Total assets		<u>5,020</u>		<u>3,435</u>
Equity and liabilities				
Equity				
Share capital (\$1 ordinary shares)	1,100		800	
Share premium	200		50	
Retained earnings	3,150		2,115	
		<u>4,450</u>	<u> </u>	2,965
Current liabilities				
Trade and other payables	340		320	
Current tax payable	230		150	
		<u>570</u>	<u> </u>	470
Total equity and liabilities		<u>5,020</u>		<u>3,435</u>

Income statement for the year ended 31 December Year 5

	\$000
Revenue	3,500
Cost of sales	<u>(1,400)</u>
	2,100
Interest receivable	50
Distribution costs	(400)
Administrative expenses	<u>(340)</u>
Profit before tax	1,410
Income tax expense	<u>(200)</u>
Profit for the period	<u>1,210</u>

The following is relevant to Year 5.

- (1) Depreciation for the year was \$500,000.
- (2) New plant was purchased.
- (3) Old plant which had a net book value of \$350,000 was sold for \$400,000.
- (4) Shares were issued.
- (5) The only movement on accumulated profits, other than the profit for the period, was dividends paid.
- (6) Cash paid to and behalf of employees amounted to \$260,000.

Required

Prepare a statement of cash flows for the year ended 31 December Year 5 using the direct method.

28 Faye

Faye set up a new subsidiary, Bob, on 1 January Year 3 and subscribed for all the issued \$1 ordinary shares of Bob, paying par value (\$1 per share). The draft statements of financial position of the two entities on 31 December Year 3 showed the following.

	Faye		Bob	
	\$	\$	\$	\$
Non-current assets				
Property, plant and equipment at cost	10,000		3,000	
Minus depreciation	(5,000)		(1,000)	
	<u>5,000</u>		<u>2,000</u>	
Investment in subsidiary		2,000		-
		<u>7,000</u>		<u>2,000</u>
Current assets				
Inventories	12,000		4,000	
Receivables	15,000		2,000	
Cash at bank	20,000		1,000	
	<u>47,000</u>		<u>7,000</u>	
		<u>54,000</u>		<u>9,000</u>
Capital and reserves				
Ordinary share capital (\$1 shares)	30,000		2,000	
Accumulated profits	13,000		2,000	
	<u>43,000</u>		<u>4,000</u>	
Current liabilities				
Payables		11,000		5,000
		<u>54,000</u>		<u>9,000</u>

Required

Prepare a consolidated statement of financial position as at 31 December Year 3.

29 Major – Part 1

Major acquired 100,000 ordinary shares in Minor on 1 September Year 3 when the retained earnings of Minor were \$10,000. Major also bought 20,000 of the 25,000 8% loan notes, which Minor had in issue. There was no trading between the two entities. Minor always pays all debenture interest on the final day of each accounting period.

The draft statements of financial position of the two entities as of 31 August Year 4 are as shown below.

	Major	Minor
	\$	\$
Non-current assets at net book value	30,000	50,000
Investment in Minor		
- Shares at cost	80,000	-
- Loan notes at cost	20,000	-
Inventories	25,000	30,000
Receivables	10,000	40,000
Cash at bank	10,000	-
	<u>175,000</u>	<u>120,000</u>
Ordinary share capital (\$1 shares)	100,000	-
Ordinary share capital (50 cent shares)	-	50,000
Retained earnings	60,000	25,000
8% loan notes	-	25,000
Payables	15,000	20,000
	<u>175,000</u>	<u>120,000</u>

Required

- (a) Prepare a consolidated statement of financial position as at 31 August Year 4 using the figures above and assuming that no impairment had taken place in the value of goodwill.
- (b) Explain how your answer would differ if you are told that goodwill has suffered an impairment amounting to \$5,000.

30 Major – Part 2

Refer back to the data in Question 29.

The facts are the same except that you are now provided with the following additional information concerning the fair values of Minor's assets at acquisition on 1 September Year 3.

The fair value of the non-current assets is \$25,000 in excess of the carrying value.

The inventories were found to be overvalued by \$5,000. This inventory was sold by 31 August Year 4.

Required

Prepare a revised consolidated statement of financial position as at 31 August Year 4.

31 Harry

Harry acquired control of Sally on 1 August Year 3, subscribing for 3 million of the 4 million \$1 ordinary shares issued by Sally. The net assets of Sally, as reported in its statement of financial position at this date, amounted to \$10 million. There was no trading between the two entities, but Harry made a five year, interest free, loan to Sally on 1 December Year 3.

The draft statements of financial position of the two companies as of 31 July Year 4 were as follows.

	Harry		Sally	
	\$000	\$000	\$000	\$000
Non-current assets				
Property, plant and equipment at net book value	41,000		-	
Freehold land at cost in Year 2	-		10,000	
Investment in subsidiary	12,000		-	
		53,000		10,000
Current assets				
Inventories	20,000		16,000	
Loan to Sally	5,000		-	
Other receivables	25,000		15,000	
		50,000		31,000
		103,000		41,000
Equity				
Ordinary share capital (\$1 shares)	40,000		4,000	
Retained earnings	36,000		8,000	
		76,000		12,000
Current liabilities				
Payables	27,000		24,000	
Loan from Harry	-		5,000	
		27,000		29,000
		103,000		41,000

The fair value of Sally's land at the date of acquisition was \$12 million.

Goodwill has suffered impairment of \$2,000 since acquisition.

For purposes of consolidation, the parent company measures the non-controlling interest (NCI) in Sally at the NCI's proportionate share of the identifiable net assets of Sally (the 'traditional' or 'old' method).

Required

Prepare a consolidated statement of financial position as at 31 July Year 4.

32 Max

Max acquired 100% of Min several years ago. Their draft income statements for the year ended 31 December Year 3 are as follows.

	Max	Min
	\$	\$
Revenue	216,300	24,400
Cost of sales	(136,269)	(15,372)
Gross profit	80,031	9,028
Distribution costs and administrative expenses	(21,630)	(2,440)
Income from shares in group companies	1,952	-
Profit before tax	60,353	6,588
Income tax expense	(28,119)	(3,172)
Profit for the period	32,234	3,416
Dividends paid were	20,000	1,952

The goodwill on acquisition has suffered impairment of \$4,000 during the current period.

Required

Prepare the consolidated income statement for the year ended 31 December Year 3.

33 Bruce

Bruce acquired 80% of Gavin on 1 December Year 2. Their draft income statements for the year ended 30 April Year 3 are as follows.

	Bruce	Gavin
	\$	\$
Revenue	4,418	2,726
Cost of sales	(1,974)	(1,218)
Gross profit	2,444	1,508
Administrative expenses	(752)	(464)
Profit before tax	1,692	1,044
Income tax expense	(799)	(493)
Profit for the year	893	551

No impairment of goodwill has taken place during the year to 30 April Year 3.

Required

Prepare the consolidated income statement for the year ended 30 April Year 3, showing the allocation of the profit for the year between the amount attributable to the owners of the parent company and the amount attributable to the non-controlling interest in the subsidiary.

34 Hack and Sack

Hack acquired 6 million shares of Sack on 1 July Year 3. The purchase consideration was 1 new share in Hack for every 2 shares in Sack. The value of Hack shares was \$8.50. Prior to the acquisition, shares in Sack were trading at \$3.90 each.

The directly-attributable costs of the acquisition were \$400,000.

Hack has chosen to use the fair value method for measuring non-controlling interests in Sack, as permitted by IFRS 3 (revised).

The following summary balance sheets as at 30 June Year 4 have been prepared, but these exclude the accounting entries necessary for the acquisition of the investment in Sack and for the acquisition expenses.

Summary statements of financial position at 30 June Year 4		
	Hack	Sack
	\$ million	\$ million
Assets:		
Non-current assets	38.0	29.0
Current assets	14.0	8.0
	52.0	37.0
Equity		
Equity shares of \$1 each	10.0	8.0
Share premium	7.0	4.0
Retained earnings at 1 July Year 3	24.0	16.0
Retained profit for year to 30 June Year 4	3.0	2.0
	44.0	30.0
Non-current liabilities: 6% loan notes	5.0	5.0
Current liabilities	3.0	2.0
	52.0	37.0

The values of the assets and liabilities of Sack reflect their fair values. There has been no impairment in consolidated goodwill since the acquisition.

Required

- (a) Prepare a consolidated statement of financial position for the Hack Group as at 30 June Year 4.
- (b) Specify how the consolidated statement of financial position would be different if it had been the accounting policy of Hack to measure non-controlling interests at their proportionate share of the net assets of Sack.

35 Holdings

The draft statement of financial position of Holdings on 31 December Year 5 shows a current account balance receivable from Subsidiary of \$25,000.

At the same date, the draft statement of financial position of Subsidiary shows payables due to Holdings of \$20,000.

You are told that Subsidiary sent a payment of \$3,000 to Holdings on 31 December which has not been reflected in the draft statement of financial position of Holdings.

On the same date, Holdings sold goods to Subsidiary at a price of \$2,000. The purchase was not reflected in the draft statement of financial position of Subsidiary.

Required

Set out the consolidation adjustments necessary to record the above information.

36 Polly

Polly and its 100% owned subsidiary, Solly, had the following revenue and cost of sales in the year ended 31 January Year 4. Polly has owned Solly throughout the period.

	Polly	Solly
	\$000	\$000
Revenue	800	500
Cost of sales	(600)	(300)
Gross profit	<u>200</u>	<u>200</u>

Included in these figures are sales of \$50,000 by Solly to Polly. All these goods have been sold on by Polly to its customers before 31 January Year 4.

Required

- (a) Show the figures to be reported in the consolidated income statement for revenue, cost of sales and gross profit for the year based on the information above.
- (b) You are now told that
 - one half of the goods sold by Solly to Polly remain in the inventory of Polly on 31 January Year 4, and
 - Solly sold the goods to Polly at a mark-up of 25% on cost.
 Re-compute the consolidated figures for revenue, cost of sales and gross profit for the year.
- (c) Show how your answer to (b) above would differ if Solly sold the goods at a gross margin of 25%.

37 Parent

Parent has owned 90% of the share capital of Son for many years.

During the year to 31 December Year 4 Son sold goods to Parent for \$300,000. This amount reflected a mark-up of one third on the cost to Son.

Goods which cost Parent \$30,000 were still in inventory on 31 December Year 4.

The income statements of each entity for the year are summarised below.

	Parent	Son
	\$000	\$000
Revenue	900	700
Cost of sales	(500)	(400)
Gross profit	400	300
Administrative expenses	(250)	(180)
Profit before tax	150	120
Tax expense	(50)	(40)
Profit for the year	100	80

Required

Prepare the consolidated income statement for the year ended 31 December Year 4, showing the allocation of the profit for the year between the amount attributable to the owners of the parent company and the amount attributable to the non-controlling interest in the subsidiary.

38 Porthos

Porthos acquired 30% of the equity shares in Aramis (which satisfies the definition of associate) during Year 1 at a cost of \$350,000 when the fair value of the net assets of Aramis was \$250,000. Since that time, the investment in Aramis has been impaired by \$4,000.

On 31 December Year 5, the net assets of Aramis were \$400,000. Since the date of acquisition, there have been no changes in the share capital of Aramis or in any reserves other than retained earnings.

In the year to 31 December Year 5, the profits of Aramis after tax were \$50,000.

Required

Show how the holding in Aramis would be reflected in the Year 5 consolidated statement of financial position and consolidated income statement.

39 Anna

On 31 December Year 5, an associate, Anna, holds inventory which is valued at \$32,000 purchased during the year from its investor entity, Paula. At the same date, Paula holds inventory purchased from a subsidiary, Susie, which is valued at \$80,000.

Sales from Paula to Anna and from Susie to Paula are priced at a mark-up of one-quarter on cost.

Paula owns 30% of Anna and 60% of Susie.

Required

Set out the adjustments necessary to reflect any unrealised profit in the above in the consolidated statement of financial position.

40 Sam

Sam imports and retails wine. Extracts from the financial statements for this year and last are set out below.

Income statements for the years ended 30 September

	Year 7	Year 6
	\$000	\$000
Revenue	2,160	1,806
Cost of sales	<u>(1,755)</u>	<u>(1,444)</u>
Gross profit	405	362
Distribution costs	(130)	(108)
Administrative expenses	<u>(260)</u>	<u>(198)</u>
Profit before tax	15	56
Income tax expense	<u>(6)</u>	<u>(3)</u>
Profit for the period	<u>9</u>	<u>53</u>

Statements of financial position as of 30 September

	Year 7		Year 6	
	\$000	\$000	\$000	\$000
Assets				
Non-current assets				
Property, plant and equipment		78		72
Current assets				
Inventories	106		61	
Trade receivables	316		198	
Cash	<u>-</u>		<u>6</u>	
		<u>422</u>		<u>265</u>
Total assets		<u>500</u>		<u>337</u>

Equity and liabilities				
Equity				
Ordinary shares	110		85	
Preference shares	23		11	
Share premium	15		-	
Revaluation reserve	20		20	
Retained earnings	78		74	
		246		190
Current liabilities				
Bank overdraft	49		-	
Trade payables	198		142	
Current tax payable	7		5	
		254		147
Total equity and liabilities		500		337

Required

Comment critically on Sam's results, using appropriate ratios.

41 Chris and Caroline

The income statements and statements of financial position of two manufacturing companies in the same sector are set out below.

	Chris	Caroline
	\$	\$
Revenue	150,000	700,000
Cost of sales	(60,000)	(210,000)
Gross profit	90,000	490,000
Interest payable	(500)	(12,000)
Distribution costs	(13,000)	(72,000)
Administrative expenses	(15,000)	(35,000)
Profit before tax	61,500	371,000
Income tax expense	(16,605)	(100,170)
Profit for the period	44,895	270,830

	Chris		Caroline	
	\$	\$	\$	\$
Assets				
Non-current assets				
Property	-		500,000	
Plant and equipment	190,000		280,000	
		190,000		780,000

Current assets			
Inventories	12,000		26,250
Trade receivables	37,500		105,000
Cash at bank	500		22,000
		<u>50,000</u>	<u>153,250</u>
Total assets		<u>240,000</u>	<u>933,250</u>
Equity and liabilities			
Equity			
Share capital	156,000		174,750
Retained earnings	51,395		390,830
		<u>207,395</u>	<u>565,580</u>
Non-current liabilities			
Long-term debt		10,000	250,000
Current liabilities			
Trade payables		<u>22,605</u>	<u>117,670</u>
Total equity and liabilities		<u>240,000</u>	<u>933,250</u>

Required

Using ratio analysis, briefly compare the profitability, efficiency/liquidity and solvency of the two entities. State, giving reasons, which is the stronger company in each case.

Q&A

Answers to practice questions

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1 Definitions

Definitions

An asset is:

- a resource controlled by the entity
- as a result of past events
- from which economic benefits are expected to flow.

A liability is:

- a present obligation of the entity
- arising from past events
- the settlement of which is expected to result in an outflow of economic benefits.

Income includes both revenue and gains.

- Revenue is income arising in the course of the ordinary activities of the entity such as sales revenue and income from investments.
- Gains include, for example, the gain on disposal of a non-current asset. They might arise in the normal course of business activities. They might be realised or unrealised. Unrealised gains occur whenever an asset is revalued upwards, such as the upward revaluation of marketable securities.

Expenses include:

- expenses arising in the normal course of activities, such as the cost of sales and other operating costs, including depreciation of non-current assets.
- losses, including, for example, the loss on disposal of a non-current asset, and losses arising from damage due to fire or flooding.

Appraisal of statement

'Statement of financial position all that is required'

- The statement of financial position does show the position of a business at a point in time (like a snapshot), but by itself is insufficient to give a comprehensive view of performance and/or adaptability.
- The IASB Framework states that information on financial performance is provided by the statement of comprehensive income. This is because the statement of financial position fails to give any account of transactions leading up to the statement of position.
- It is the statement of comprehensive income and the SOCIE that show the performance of a business in a given period and reconcile the opening and closing statements of financial position.
- Information on financial adaptability is given primarily by the statement of cash flows. This is because financial adaptability is the ability to take effective action to alter the amount and timing of cash flows. Some information comes from the statement of financial position (e.g. the note about future finance lease commitments) but the statement of financial position is by no means 'all that is required'.

'Income statement is a superfluous statement'

Although income (revenue and gains) and expenses (and losses) would be reflected in an increase/decrease in the assets and liabilities in the statement of financial position, the volume and type of income generated would give a better indication of

company performance. It is the statement of comprehensive income that provides such detailed information; without it the performance of the business cannot be properly evaluated.

2 Carrie

	(a) Physical capital maintenance	(b) Financial capital maintenance	
		(i) Historical cost accounting	(ii) Constant purchasing power accounting
Profit for the year			
	\$	\$	\$
Sales	1,400	1,400	1,400
Cost of sales	(1,000)	(1,000)	(1,000)
Inflation adjustment			
- Specific (1,100 – 1,000)	(100)	-	-
- General (1,000 × 7%)	-	-	(70)
Profit	<u>300</u>	<u>400</u>	<u>330</u>
Balance sheet as at 31 December Year 1			
Cash at bank	<u>1,400</u>	<u>1,400</u>	<u>1,400</u>
Share capital (1,000 + 100)			
(1,000 + 70)	1,100*	1,000	1,070*
Reserves	<u>300</u>	<u>400</u>	<u>330</u>
	<u>1,400</u>	<u>1,400</u>	<u>1,400</u>

Tutorial note

Share capital at the year end is restated under the physical capital maintenance concept for an increase in specific price changes and under CPP accounting for general price changes. This is the other side of the entry to the inflation adjustments in the income statement

3 David

The revenue from this machine comes in as follows.

	\$
Initial deposit ($\$100,000 \times 10\%$)	10,000
Balance to pay on delivery	90,000
Three year service contract ($\$100,000 \times 5\%$)	5,000
Total	<u>105,000</u>

The revenue from the initial deposit of \$10,000 should not be recognised until the machine is delivered because, at that stage, the risks and rewards of ownership have not passed to the buyer.

When the machine is delivered to the buyer, possession of the goods passes and therefore this would usually mean that the significant risks and rewards of ownership have also passed to the buyer. Although installation still has to take place, we are told that this is a simple process and the costs are negligible. Therefore the fact that installation has not yet taken place does not mean that the 'significant risks and rewards of ownership' have not passed. If installation had been a complex process or was used to determine the final price in some way then the revenue should not be recognised until installation was complete.

In this case therefore the \$100,000 selling price of the machine should be recognised on delivery of the machine.

The \$5,000 in respect of after sales support and servicing costs should be recognised as revenue over the three year period during which these services are performed. Depending on the pattern of servicing costs it may not be appropriate to take this revenue on a straight line basis. It may be that more revenue should be allocated to later years when servicing costs will be greater.

4 Peter

(1) Sale and repurchase agreement

The risks and rewards of ownership have not passed because Peter has agreed to repurchase the inventories at a later date.

The substance of the arrangement is that Peter has obtained a loan secured on the inventories. The difference between the sale price of \$18,000 and the repurchase price of \$20,000 represents the interest on the loan.

To account for the transaction in accordance with its substance:

- the goods should remain in inventories at the lower of cost and net realisable value
- no sale should be recorded
- the obligation to repurchase the inventories should be treated as a current liability of \$20,000
- \$2,000 (20,000 – 18,000) should be charged as interest in profit or loss.

(2) Factoring of receivables

The risks and rewards of ownership have not passed because Peter has retained:

- the risk of bad debts (the factor has a right of recourse for any bad debts)
- access to future economic benefits in the form of expected further cash receipts (the additional 24%/23% etc).

The substance of the arrangement is that Peter has obtained a loan secured on the receivables, payable out of the cash receipts from those receivables. The 1% of the gross receivables per month retained by the factor is interest on that loan.

To account for the transaction in accordance with its substance:

- the receivables should remain on the balance sheet until paid in full
- the \$16,500 ($22,000 \times 75\%$) should be treated as a current liability
- when payment is received in respect of a receivable, the full amount should be credited to the receivable and the 'interest' charged to profit or loss.

Tutorial note

On receipt of the \$16,500 from the factor:

		\$	\$
Dr	Cash	16,500	
	Cr		16,500
	Loan		

If all receivables pay in April, Peter will receive a further \$5,280 ($22,000 \times 24\%$) from the factor:

		\$	\$
Dr	Cash	5,280	
	Cr		5,280
	Receivables		

At that point the receivables will be removed from the statement of financial position, the loan repaid and interest are recorded as follows:

		\$	\$
Dr	Loan	16,500	
	Interest (balancing figure)	220	
	Cr		16,720
	Receivables	(22,000 – 5,280)	

(3) Consignment inventories

Whether Peter should continue to hold the inventories in its statement of financial position on 31 March Year 3 depends on whether the risks and rewards of ownership have been passed to the dealer. They do not appear to have passed as:

- the dealer has a right of return over inventories (and therefore does not bear the risk of obsolescence)
- the selling price to the dealer is Peter's list price at the date of sale (and therefore Peter has not transferred the risk of prices falling in the intervening period).

So the vehicles should remain in inventories in Peter's statement of financial position on 31 March Year 3.

(4) Sale and leaseback

Because the resultant lease is a finance lease the risks and rewards of ownership have not passed to Anthony. Therefore, in substance, there has been no sale:

- the machine should remain in Peter's property, plant and equipment at its original value of \$467,000
- a lease liability of \$550,000 should be set up.

5 Larry

Income statement for the year ended 31 December Year 1

	\$000
Revenue	3,304
Cost of sales (2,542 + 118 – 127)	(2,533)
Gross profit	771
Other income	20
Distribution costs	(175)
Administrative expenses	(342)
Profit before tax	274
Income tax expense	(75)
Profit for the period	199

Statement of financial position as at 31 December Year 1

	\$000	\$000
Assets		
Non-current assets		
Property, plant and equipment (2,830 – 918)	1,912	
Intangible assets (26 – 5)	21	
	<u> </u>	1,933
Current assets		
Inventories	127	
Trade and other receivables	189	
Cash (89 +2)	91	
	<u> </u>	407
Total assets		<u>2,340</u>
Equity and liabilities		
Equity		
Share capital	400	
Retained earnings (1,562 + 199)	1,761	
	<u> </u>	2,161
Non-current liabilities		
Long-term borrowings (18 x 2/3)	12	
	<u> </u>	12
Current liabilities		
Trade and other payables	86	
Current portion of long-term borrowing (18 ÷ 3)	6	
Current tax payable	75	
	<u> </u>	167
Total equity and liabilities		<u>2,340</u>

6 Barry**Income statement for the year ended 31 December Year 4**

	\$000
Revenue	1,740
Change in inventories of finished goods and work-in-progress (W3)	40
Staff costs (W3)	(620)
Depreciation and other amortisation expense (W3)	(42)
Other expenses (W3)	(359)
Profit before tax	759
Income tax expense	(120)
Profit for the period	639

Statement of financial position as at 31 December Year 4

	\$000	\$000
Assets		
Non-current assets		
Property, plant and equipment (W1)	368	
Intangible assets (W2)	40	
	—	408
Current assets		
Inventories (180 + 140)	320	
Trade and other receivables (420 x 95%)	399	
Cash	440	
	—	1,159
Total assets		1,567
Equity and liabilities		
Equity		
Share capital	600	
Other reserves	120	
Retained earnings	635	
	—	1,355
Current liabilities		
Trade and other payables	92	
Current tax payable	120	
	—	212
Total equity and liabilities		1,567

Statement of changes in equity for the year ended 31 December Year 4

	Share capital	Revaluation reserve	Retained earnings	Total
	\$000	\$000	\$000	\$000
Balance at 31 December Year 3	620		121	721
Dividends paid			(125)	(125)
Net revaluation surplus in the year (360 – (300 – 60))		120	-	120
Profit after tax for the period	-	-	639	639
Balance at 31 December Year 4	<u>620</u>	<u>120</u>	<u>635</u>	<u>1,355</u>

Workings**(1) Property, plant and equipment**

	\$000
Cost brought forward	
Leasehold	300
Computers	50
Revaluation	60
Cost carried forward	<u>410</u>
Accumulated depreciation brought forward (60 + 20)	80
Revaluation	(60)
Charge for the year	
Leasehold (360 ÷ 30)	12
Computers (50 ÷ 5)	10
Accumulated depreciation carried forward	<u>42</u>
Carrying amount carried forward	<u>368</u>

(2) Intangible assets

	\$000
Cost	60
Amortisation (60 ÷ 3)	(20)
Carried forward	<u>40</u>

(3) Allocation of costs

	Change in inventories	Staff costs	Depreciation etc	Other expenses
	\$000	\$000	\$000	\$000
Work-in-progress (140 – 125)	(15)			
Staff costs		260		
Finished goods (180 – 155)	(25)			
Consultancy fees				44
Directors' salaries		360		
Doubtful receivables (420 × 5%)				21
Sundry				294
Amortisation of patent (W2)			20	
Depreciation (12 + 10) (W1)			22	
	(40)	620	42	359

7 Duncan

Statement of changes in equity (extract)

	Retained earnings	Retained earnings
	Year 2	Year 1
	\$000	\$000
Opening balance as reported	23,950	22,500
Change in accounting policy (W2)	450	400
Re-stated balance	24,400	22,900
Profit after tax for the period (W1)	4,442	3,250
Dividends paid	(2,500)	(1,750)
Closing balance	26,342	24,400

Workings

(1) Revised profit

	Year 2	Year 1
	\$000	\$000
Per question	4,712	3,200
Add back: Expenditure for the year	600	500
Minus: Depreciation	(870)	(450)
Revised profit	4,442	3,250

(2) Prior period adjustment

The prior period adjustment is the reinstatement of the \$400,000 asset on 1 January Year 1 and the \$450,000 asset at 1 January Year 2. On 31 December Year 2 the closing balance above of \$26,342,000 can be reconciled as the original \$26,162,000 plus the reinstatement of the remaining asset of \$180,000.

8 Saul**Income statement for the year ended 31 December Year 1**

	\$000
Continuing operations	
Revenue	3,315
Cost of sales	(2,125)
	<hr/>
Gross profit	1,190
Distribution costs	(255)
Administrative expenses	(680)
	<hr/>
Profit before tax	255
Income tax expense	(90)
	<hr/>
Profit for the period from continuing operations	165
Discontinued operations	
Loss for the period from discontinued operations (W)	(15)
	<hr/>
Profit for the period	150
	<hr/>

Statement of financial position as at 31 December Year 1

	\$000	\$000
<hr/>		
Assets		
Non-current assets		
Property, plant and equipment (1,900 – 510)	1,390	
Intangible assets	40	
	<hr/>	1,430
Current assets		
Inventories	350	
Trade and other receivables	190	
Cash	90	
	<hr/>	630
		<hr/>
		2,060
Non-current assets classified as held for sale		450
		<hr/>
Total assets		2,510
		<hr/>
Equity and liabilities		
Equity		
Share capital	600	
Retained earnings (1,700 – 60)	1,640	
	<hr/>	2,240
Current liabilities		
Trade and other payables (195 – 10)	185	
Current tax payable	75	
Liabilities classified as held for sale	10	
	<hr/>	270
		<hr/>
Total equity and liabilities		2,510
		<hr/>

Tutorial note

Division A is classified as discontinued in Year 1 because, although it has not been sold during the period it meets the IFRS5 criteria for classification as 'held for sale'.

Working: Discontinued operation

	Continuing operations	Discontinued operations	Total
	\$000	\$000	\$000
Revenue	3,315	585	3,900
Cost of sales	(2,125)	(375)	(2,500)
Gross profit	1,190	210	1,400
Distribution costs	(255)	(45)	(300)
Administrative expenses	(680)	(120)	(800)
Impairment loss (510 – 450)	-	(60)	(60)
Profit before tax	255	(15)	240
Income tax expense	(90)	-	(90)
Profit/(loss) for the period	165	(15)	150

9 Richard**Statement of changes in equity for the year ended 31 December Year 1**

	Share capital	Share premium	Capital reserve	Revaluation reserve	Retained earnings	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Balance at 1 January Year 1	2,000	600	500	560	460	4,120
Net revaluation surplus in the year (350 – 260)	-	-	-	90	-	90
Loss after tax for the period	-	-	-	-	(75)	(75)
Issue of share capital	300	150	-	-	-	450
Dividends paid	-	-	-	-	(145)	(145)
Balance at 31 December Year 1	2,300	750	500	650	240	4,440

10 Carly**Financial statements for the year ended 31 December Year 1 (extract)****Property, plant and equipment**

	Land and buildings	Plant and machinery	Computer equipment	Total
	\$	\$	\$	\$
Cost/valuation				
At 1 January Year 1	1,500,000	340,500	617,800	2,458,300
Revaluation	250,000	-	-	250,000

Additions (W2)	-	17,550	-	17,550
Disposals	-	(80,000)	-	(80,000)
At 31 December Year 1	<u>1,750,000</u>	<u>278,050</u>	<u>617,800</u>	<u>2,645,850</u>
Accumulated depreciation				
At 1 January Year 1	600,000	125,900	505,800	1,231,700
Revaluation	(600,000)	-	-	(600,000)
Charge for the year (W1)	27,500	52,287	44,800	124,587
Disposals	-	(57,000)	-	(57,000)
At 31 December Year 1	<u>27,500</u>	<u>121,187</u>	<u>550,600</u>	<u>699,287</u>
Carrying amount				
At 31 December Year 0	<u>900,000</u>	<u>214,600</u>	<u>112,000</u>	<u>1,226,600</u>
At 31 December Year 1	<u>1,722,500</u>	<u>156,863</u>	<u>67,200</u>	<u>1,946,563</u>

Workings**(1) Depreciation charges**

Buildings = $(1,750,000 - 650,000) \div 40 = \$27,500$

Plant and machinery:

	\$
<hr/>	
New machine $(17,550 \times 25\%)$	4,387
Existing plant $(((340,500 - 80,000) - (125,900 - 57,000)) \times 25\%)$	47,900
	<u>52,287</u>

Computer equipment = $112,000 \times 40\% = \$44,800$

(2) Cost of new machine

	\$
<hr/>	
Purchase price $(20,000 - 3,000 - 1,000)$	16,000
Delivery costs	500
Installation costs	750
Interest on loan taken out to finance the purchase	300
	<u>17,550</u>

11 Katie**Option 1 – Net grants off related expenditure****Statement of financial position as at 30 June Year 2 (extracts)**

	\$
<hr/>	
Non-current assets	
Property, plant and equipment	223,333
Current liabilities	
Other current liabilities	100,000

Notes to the financial statements for the year ended 30 June Year 2 (extracts)

Property, plant and equipment	\$
Cost (350,000 – 100,000)	250,000
Accumulated depreciation $((250,000 - 50,000) \div 5 \times 8/12)$	<u>(26,667)</u>
Carrying amount	<u>223,333</u>

Included in income statement for the year ended 30 June Year 2

	\$
Depreciation charge	26,667
Training costs (70,000 – 40,000)	30,000

Option 2 – Show grants separately from related expenditure**Statement of financial position as at 30 June Year 2 (extracts)**

	\$
Non-current assets	
Property, plant and equipment	310,000
Current liabilities	
Other current liabilities	186,667

Notes to the financial statements for the year ended 30 June Year 2 (extracts)

	\$
Property, plant and equipment	
Cost	350,000
Accumulated depreciation $((350,000 - 50,000) \div 5 \times 8/12)$	<u>(40,000)</u>
Carrying amount	<u>310,000</u>
Other current liabilities	
Deferred income relating to government grants (100,000 - $(100,000 \div 5 \times 8/12)$)	86,667
Government grant repayable	<u>100,000</u>
	<u>186,667</u>

Included in income statement for the year ended 30 June Year 2

	\$
Depreciation charge	40,000
Training costs	70,000
Government grant received	(40,000)
Release of deferred government grant	<u>(13,333)</u>

Tutorial note

The \$100,000 grant in (3) has conditions attached to it. In such a situation, IAS20 states that grants should not be recognised until there is reasonable assurance that the entity will comply with any conditions attaching to the grant. Since Katie is

struggling to recruit, and there is only one month left for recruitment to meet these conditions, then it does not seem that there is 'reasonable assurance'. Hence the grant should not be recognised as such, but should be held in current liabilities, pending repayment.

12 Victoria

- (a) Treatment in the financial statements for the year ended 31 December Year 8 (IAS16)

Property 1

This is used by Victoria as its head office and therefore cannot be treated as an investment property. It will be stated at cost minus accumulated depreciation in the statement of financial position. The depreciation for the year will be charged in the income statement.

Property 2

This is held for its investment potential and should be treated as an investment property. It will be carried at fair value, Victoria's policy of choice for investment properties. It will be revalued to fair value at each year end and any resultant gain or loss taken to the income statement (\$400,000 in Year 8).

Property 3

This is held for its investment potential and should be treated as an investment property. However, since its fair value cannot be arrived at reliably it will be held at cost minus accumulated depreciation in the statement of financial position. The depreciation for the year will be an expense in the income statement.

This situation provides the exception to the rule whereby all investment properties must be held under either the fair value model, or the cost model.

- (b) Analysis of property, plant and equipment for the year ended 31 December Year 8

	Other land and buildings (W1)	Investment property held at fair value	Investment property held at cost (W2)	Total
	\$	\$	\$	\$
Cost/valuation				
On 1 January Year 8	1,000,000	2,300,000	2,000,000	5,300,000
Revaluation	-	400,000	-	400,000
On 31 December Year 8	<u>1,000,000</u>	<u>2,700,000</u>	<u>2,000,000</u>	<u>5,700,000</u>
Accumulated depreciation				
On 1 January Year 8	87,500	-	220,000	307,500
Charge for the year (W1)	12,500	-	40,000	52,500
On 31 December Year 8	<u>100,000</u>	<u>-</u>	<u>260,000</u>	<u>360,000</u>

Carrying amount				
On 31 December Year 7	912,500	2,300,000	1,780,000	4,992,500
On 31 December Year 8	900,000	2,700,000	1,740,000	5,340,000

Tutorial note

In practice, with a more complex property, plant and equipment table the investment properties would be included within the land and buildings column with the required disclosures being given separately in a note to the table.

Workings**(1) Depreciation on Property 1**

	\$
<hr/>	
Brought forward (500,000 ÷ 40 × 7)	87,500
Year 8 (500,000 ÷ 40)	12,500

(2) Depreciation on Property 3

	\$
<hr/>	
Brought forward (2,000,000 ÷ 50 × 5.5)	220,000
Year 8 (2,000,000 ÷ 50)	40,000

13 Henry**Property, plant and equipment**

	Plant and machinery
Cost	\$
On 1 January Year 2	X
Additions	30,000
	<hr/>
On 31 December Year 2	X
Accumulated depreciation	
On 1 January Year 2	X
Charge for the year (30,000 × 9/12 ÷ 5)	4,500
	<hr/>
On 31 December Year 2	X
Carrying amount	
On 31 December Year 1	X
	<hr/>
On 31 December Year 2	25,500
	<hr/>

Intangible assets

	Internally generated research and development expenditure
Cost	\$
On 1 January Year 2	412,500
Additions	<u>45,000</u>
On 31 December Year 2	<u>457,500</u>
Accumulated amortisation	
On 1 January Year 2	-
Charge for the year (W)	<u>68,750</u>
On 31 December Year 2	<u>68,750</u>
Carrying amount	
On 31 December Year 1	<u>412,500</u>
On 31 December Year 2	<u>388,750</u>

Working**Amortisation charge (Project A)**

	\$
Total savings (100,000 + 300,000 + 200,000)	600,000
Year 2 amortisation charge (100,000/600,000 × 412,500)	68,750

Tutorial notes

The costs in respect of Project B cannot be capitalised as there are uncertainties surrounding the successful outcome of the project – but the machine bought may be capitalised in accordance with IAS16.

The Year 2 costs in respect of Project C can be capitalised as the uncertainties have now been resolved. However, the Year 1 costs cannot be reinstated.

14 Toby**Intangible assets**

	Goodwill	Patents	Brands	Total
	\$	\$	\$	\$
Cost				
On 1 January Year 1	-	-	-	-
Additions (W1)	<u>10,000</u>	<u>20,000</u>	<u>50,000</u>	<u>80,000</u>
On 31 December Year 1	<u>10,000</u>	<u>20,000</u>	<u>50,000</u>	<u>80,000</u>

	Goodwill	Patents	Brands	Total
	\$	\$	\$	\$
Accumulated amortisation/impairment				
On 1 January Year 1	-	-	-	-
Written off/amortised during the year (W1 and W2)	3,000	2,500	7,500	13,000
On 31 December Year 1	3,000	2,500	7,500	13,000
Carrying amount				
On 31 December Year 0	-	-	-	-
On 31 December Year 1	7,000	17,500	42,500	67,000

Workings**(1) Goodwill on acquisition of George**

	\$
Cost of acquisition	105,000
Minus fair value of net assets acquired (100,000 – 5,000)	(95,000)
Goodwill	10,000
Recoverable value	(7,000)
Impairment write off	3,000

(2) Amortisation of patent

$$20,000 \div 8 = \$2,500$$

(3) Amortisation of brand

$$50,000 \div 5 \times 9/12 = \$7,500$$

Tutorial note

IAS38 Intangible assets prohibits the recognition of internally generated brands (3) or internally-generated goodwill (4).

15 Charlotte**Effect on Year 7 profit or loss**

	Machine 1	Machine 2	Machine 3
	\$	\$	\$
Impairment loss	(107,500) (W1)	(41,000) (W2)	(5,000)
Depreciation charge (100,000 ÷ 5)	(20,000)	-	-
Gain on disposal (210,000 - 195,000 (W2))	-	15,000	

Effect on Year 7 other comprehensive income

	Machine 1	Machine 2	Machine 3
	\$	\$	\$
Revaluation loss	(40,000) (W1)	(41,000) (W2)	(5,000)
Less: Associated taxation	12,000		

Effect on Year 7 revaluation reserve

	Machine 1	Machine 3
	\$	\$
On 1 January Year 7: Machine 1 (W1): Machine 3 \$230,000 less 30%	28,000	161,000
Revaluation to fair value on classification as held for sale		
Impairment loss, 31 December Year 7 (W1)	(28,000)	
Transferred to retained earnings on disposal	<u> </u>	<u>(161,000)</u>
On 31 December Year 7	<u> </u>	<u> </u>

Workings**(1) Machine 1**

	\$
1 January Year 1 Cost	420,000
Depreciation to 1 January Year 6 $((420,000 - 50,000) \div 10) \times 5$	<u>(185,000)</u>
Carrying amount on 1 January Year 6	235,000
Revalued to	<u>275,000</u>
Revaluation gain before tax	<u>40,000</u>
Carrying amount on 1 January Year 6	275,000
Depreciation to 1 January Year 7 $(275,000 \div (15 - 5))$	<u>(27,500)</u>
Carrying amount at 1 January Year 7	247,500
Recoverable amount	<u>(100,000)</u>
Impairment loss	<u>147,500</u>

In the year to 31 December Year 6, the asset is revalued upwards by \$40,000. Of this, \$28,000 is taken to the revaluation reserve and \$12,000 ($\$40,000 \times 30\%$) to deferred tax as a liability.

In the year to 31 December Year 7, the impairment loss is \$147,500. Of this, \$40,000 reverses the gain in the previous year. The revaluation reserve is reduced by \$28,000 and the deferred tax liability by \$12,000. The remaining impairment loss of \$107,500 is written off as a loss in Year 7.

(2) Machine 2

	\$
1 January Year 1 Cost	500,000
Depreciation to 1 January Year 7 $((500,000 - 60,000) \div 10) \times 6$	<u>(264,000)</u>
Carrying amount on 1 January Year 7	236,000
Fair value minus cost to sell $(200,000 - 5,000)$	<u>(195,000)</u>
Impairment loss	<u>41,000</u>

(3) Machine 3

	\$
1 January Year 1 Cost	600,000
Depreciation to 1 January Year 2	<u>(30,000)</u>
Carrying amount on 1 January Year 2	570,000
Revalued to	<u>800,000</u>
Taken to revaluation reserve/deferred tax (70%/30%)	<u>230,000</u>
Carrying amount on 1 January Year 2	800,000
Depreciation to 1 January Year 7 $((800,000 \div 8) \times 5)$	<u>(500,000)</u>
Carrying amount on 1 January Year 7	<u>300,000</u>
Fair value on classification as held for sale	550,000
Value at lower of carrying amount and fair value less costs to sell: therefore	300,000

16 Henrietta

	\$
Raw materials (2,000 × 173 (W2))	346,000
Finished goods (2,000 × 228 (W2))	<u>456,000</u>
	<u>802,000</u>

Workings**(1) Cost per unit**

	\$
Raw materials	150
Import duties	10
Transport costs (to present location and condition)	20
Total raw materials cost	180
Variable costs	25
Fixed costs $(\$30,000 \div 1,000)$ (based on normal level of activity)	<u>30</u>
Total finished goods cost	<u>235</u>

(2) Net realisable value

Raw materials:

	\$	\$
Estimated selling price		240
Minus all costs to make item ready for sale		
Variable (W1)	25	
Fixed (W2)	<u>30</u>	
		<u>(55)</u>

Minus all costs necessary to make the sale		
Delivery costs	8	
Selling costs	4	
	<u> </u>	(12)
NRV		<u>173</u>
Finished goods:		\$
		<u> </u>
Estimated selling price		240
Minus all costs necessary to make the sale (as above)		<u>(12)</u>
		<u>228</u>

17 Anabelle

Included in income statement

	\$000
Revenue (860 + 619 + 387 + 120) (W3)	1,986
Costs (balancing figure)	<u>(1,732)</u>
Profit (170 + 129 – 45) (W3)	<u>254</u>

Included in statement of financial position

	\$000
Current assets	
Due from customers on contracts (29 + 20) (W4)	49
Receivables: Amounts recoverable on contracts ((690 – 600) + (650 – 600))	140
Non-current liabilities	
Due to customers on contracts (W4)	290

Workings

(1) Total profit expected on the contract

	Contract			
	A	B	C	D
	\$000	\$000	\$000	\$000
Contract price	1,850	750	960	800
Minus costs to date	(1,490)	(590)	(405)	(120)
Estimated future costs	<u> </u>	<u>(25)</u>	<u>(600)</u>	<u>(480)</u>
Total expected profit/(foreseeable loss)	<u>360</u>	<u>135</u>	<u>(45)</u>	<u>200</u>

(2) Proportion of work completed to date

	A	B	Contract C	D
Costs to date	1,490	590	405	Too early to assess with reasonable certainty therefore take nil profit (i.e. revenue = costs)
Total costs	1,490	590 + 25	405 + 600	
=	100%	95.9%	40.3%	

(3) Income statement figures

Revenue:

	A	Contract B	C	D
	\$000	\$000	\$000	\$000
Cumulative to year end (750 × 95.9% (W2)) (960 × 40.3%(W2))	1,850	719	387	120 (= costs to date)
Minus taken to income statement in previous years	(990)	(100)	-	-
This year (balancing figure)	860	619	387	120

Profit:

	A	Contract B	C	D
	\$000	\$000	\$000	\$000
Cumulative to year end (135 (W1) × 95.9% (W2))	360 (W1)	129	(45)	nil
Minus taken to income statement in previous years	(190)	-	-	-
This year (balancing figure)	170	129	(45)	-

(4) Figures in statement of financial position

	A	Contract B	C	D
	\$000	\$000	\$000	\$000
Costs incurred	1,490	590	405	120
Recognised profits/(losses) (W2)	360	129	(45)	nil
Minus progress billings	(1,850)	(690)	(650)	(100)
Due from customers on contracts/ (Due to customers on contracts)	-	29	(290)	20

18 Michael

Capital and reserves	\$
Share capital (\$1 ordinary shares) (W2)	1,625,000
Share premium (W3)	-
Retained earnings	<u>6,116,812</u>
	7,741,812
Liabilities (W5)	164,751

Workings**(1) Profit for the year**

	\$
Original	508,500
Minus: Finance charges (W5)	<u>(14,988)</u>
	<u>493,512</u>

(2) Ordinary share capital

	\$
At 1 January	1,000,000
Issue at full price on 31 March	<u>300,000</u>
	1,300,000
Bonus issue on 30 June (1,300,000 ÷ 4)	<u>325,000</u>
	<u>1,625,000</u>

(3) Share premium

	\$
At 1 January	200,000
Issue at full price on 31 March ((300,000 × 0.30) – 20,000)	<u>70,000</u>
	270,000
Bonus issue on 30 June	<u>(270,000)</u>
	<u>-</u>

(4) Retained earnings

	\$
At 1 January	5,670,300
Minus: Bonus issue on 30 June (325,000 (W2) – 270,000 (W3))	<u>(55,000)</u>
Add: Profit for the year (W1)	493,512
Add back: Preference dividends charged to retained earnings (W5)	<u>8,000</u>
	<u>6,116,812</u>

(5) Redeemable preference shares

	Liability at beginning of year	Finance charge at 9.5%	Interest paid at 4%	Outstanding liability at end of year
	\$	\$	\$	\$
Year 1 ((100,000 × \$1.60) – 2,237)	157,763	14,988	(8,000)	164,751

19 Finley

Financial statements for the year ended 31 December Year 4 (extracts)

Statement of financial position

Non-current assets	\$
Property, plant and equipment (36,000 – 9,000)	27,000
Current liabilities	
Finance lease obligations (W1)	10,000
Non-current liabilities	
Finance lease obligations (W1)	17,950

Income statement

	\$
Depreciation on leased assets ((36,000 ÷ 4)	9,000
Finance lease charges (W1)	1,950

Workings

(1) Finance lease obligations (boat)

Year ended	Opening balance	Lease payment	Capital outstanding	Interest at 7.5%	Closing balance
	\$	\$	\$	\$	\$
31 December Year 4	36,000	(10,000)	26,000	1,950	27,950
31 December Year 5	27,950	(10,000)	17,950	1,346	19,296
			\$		
Current (balancing figure)			10,000		
Non-current			17,950		
			<u>27,950</u>		

20 Fabian**Financial statements for the year ended 31 December Year 7 (extracts)****Statement of financial position**

Non-current assets	\$
Property, plant and equipment (126,760 – 31,690)	95,070
Current assets	
Trade and other receivables (W1)	6,250
Current liabilities	
Finance lease obligations (W2)	30,056
Non-current liabilities	
Finance lease obligations (W2)	69,380

Income statement

	\$
Operating expenses	
Operating lease rentals (W1)	5,450
Depreciation on leased assets (126,760 ÷ 4)	31,690
Finance costs	
Finance lease charges (W2)	12,676

Tutorial note

The notes to the financial statements would disclose the fact that included in trade and other receivables is \$3,750 (W1) due in more than one year.

Workings**(1) Operating lease (car)**

	\$
Income statement charge = $((7,500 + (36 \times 700)) \times 6/36) =$	5,450
Cash paid in Year 7 (7,500 + (700 × 6))	11,700
Minus charged to income statement in Year 7	(5,450)
Prepayment at end of Year 7	6,250
Prepayment at end of Year 7	6,250
Cash paid in Year 8 (12 × 700)	8,400
Minus charged to income statement in Year 8 (5,450 × 2)	(10,900)
Prepayment at end of Year 8	3,750

(2) **Finance lease obligations (machine)**

Date	Opening balance	Interest (10%)	Lease payment	Closing balance
	\$	\$	\$	\$
Year 7	126,760	12,676	(40,000)	99,436
Year 8	99,436	9,944	(40,000)	69,380
			\$	
Current (balancing figure)			30,056	
Non-current			69,380	
			<u>99,436</u>	

21 Georgina(1) **Litigation for damages**

Under IAS37, a provision should only be recognised when:

- an entity has a **present obligation as a result of a past event**
- it is **probable** that an outflow of economic benefits will be required to settle the obligation
- a **reliable** estimate can be made of the amount of the obligation.

Applying this to the facts given:

- Georgina's legal advisors have confirmed that there is a legal obligation. This arose from the past event of the sale, on 1 September Year 7 (i.e. before the year end).
- Probable is defined as 'more likely than not'. The legal advisors have confirmed that it is likely that the claim will succeed.
- A reliable estimate of \$500,000 has been made.

Therefore a provision of \$500,000 should be made.

Counter-claim

IAS37 requires that such a reimbursement should only be recognised where receipt is 'virtually certain'. Since the legal advisors are unsure whether this claim will succeed no asset should be recognised in respect of this claim.

(2) **Claim for unfair dismissal**

In this case, the legal advisers believe that success is unlikely (i.e. possible rather than probable). Therefore this claim meets the IAS37 definition of a contingent liability:

- a **possible obligation**
- arising from **past events**
- whose existence will be confirmed only by the **occurrence or non-occurrence of one or more uncertain future events**.

The liability is a possible one, which will be determined by a future court case or tribunal. It did arise from past events (the dismissal had taken place by the year end).

This contingent liability should be disclosed in the financial statements (unless the legal advisors believe that the possibility of success is in fact remote, and then no disclosure is necessary).

(3) **Returns**

Applying the IAS37 conditions in (1) to the facts given:

- Although there is no legal obligation, a constructive obligation arises from Georgina's past actions. Georgina has created an expectation in its customers that such refunds will be given.
- As at the year end, based on past experience, an outflow of economic benefits is probable.
- A reliable estimate can be made. This could be $1\% \times 400,000$ but since the returns are now all in the actual figure of \$3,500 can be used.

Therefore a provision of \$3,500 should be made.

(4) **Closure of division**

Applying the above IAS37 conditions in (1) to the facts given:

- A present obligation exists because at the year end there is a detailed plan in place and the closure has been announced in the press.
- An outflow of economic benefits is probable.
- A reliable estimate of \$300,000 has been made.

However, IAS37 specifically states in respect of restructuring that any provision should include only direct expenses, not ongoing expenses such as staff relocation or retraining. Therefore a provision of \$250,000 ($300,000 - 50,000$) should be made.

22 Olivia

Included in income statement

	\$
Revenue	5,570,500
Interest receivable (30,000 + 9,000)	39,000
Purchases	(4,789,400)
Interest payable (20,000 + 6,000)	(26,000)
Profit before tax	345,900
Tax (see note)	(117,380)

Note to the income statement

	\$
Current tax for the year (W3)	113,880
Under provision of tax in the previous year (W3)	700
Deferred tax (35,500 – 32,700)	2,800
Total tax charge	117,380

Statement of financial position

	\$
Current liabilities	
Trade and other payables (W1)	29,065
Current tax payable (103,880 (W3) – 3,000 (W2))	100,880
Non-current liabilities	
Deferred tax	35,500

Workings**(1) Sales tax**

	\$		\$
Trade payables (4,789,400 × 15%)	718,410	Brought forward	25,600
Bank	113,700	Trade receivables 5,570,500 × (15%)	835,575
Carried forward	29,065		
	861,175		861,175

(2) Withholding tax

	\$		\$
Interest receivable	9,000	Interest payable	6,000
	9,000	Carried forward	3,000
	9,000		9,000

(3) Current tax

	\$		\$
Bank	16,200	Brought forward	15,500
	16,200	Income statement	700
	16,200		16,200
Bank	10,000	Income statement (379,600 × 30%)	113,880
Carried forward	103,880		
	113,880		113,880

23 Francesca

	\$		\$
Opening liability			1,340,600
Capital allowances during the year	50,000,000		
Depreciation charged during the year	(45,000,000)		
	<u>5,000,000</u>	× 30%	1,500,000
Interest receivable in income statement	50,000		
Interest received in tax computation	(45,000)		
Receivable in statement of financial position	<u>5,000</u>	× 30%	1,500
Interest payable in income statement	32,000		
Interest paid in tax computation	(28,000)		
Payable in balance sheet	<u>4,000</u>	× 30%	(1,200)
Development costs as allowable expense	500,600	× 30%	150,180
Revaluation	6,000,000		
Carrying value	(4,900,500)		
Revaluation surplus	<u>1,099,500</u>	× 30%	329,850
Closing liability			<u>3,320,930</u>
			\$
Charged to the revaluation reserve			329,850
Charged in the income statement (balancing figure)			<u>1,650,480</u>
Total movement on the provision of (3,320,930 – 1,340,600)			<u>1,980,330</u>

24 Mary

	\$
2 existing shares have a cum rights value of (2 × \$4)	8
<u>1</u> new share is issued for	<u>1</u>
<u>3</u> new shares have a theoretical value of	<u>9</u>

Theoretical ex-rights prices = $\$9/3 = \3

Date		Number of shares	Time factor	Bonus fraction	Rights fraction	Weighted average number of shares
1 January	Brought forward	5,000,000	1/12	6/5	4/3	666,667
1 February	Bonus issue (1 for 5)	<u>1,000,000</u>				
		6,000,000	2/12		4/3	1,333,333
1 April	Rights issue (1 for 2)	<u>3,000,000</u>				
		9,000,000	2/12			1,500,000
1 June	Issue at full market price	<u>800,000</u>				
31 December	Carried forward	9,800,000	7/12			5,716,667
						<u>9,216,667</u>
						<u>\$1,961,500</u>

Earnings for Year 5 are (3,362,000 – 600,500 – 800,000)

EPS Year 5 = 1,961,500/9,216,667 = \$0.21 or 21c

EPS Year 4 (adjusted) = \$0.32 × 3/4 × 5/6 = \$0.20 or 20c

25 Mandy

Adjusted total earnings

	Year 4		Year 3	
	\$	\$	\$	\$
Reported earnings		2,579,000		1,979,000
Add back interest saved (1,000,000 × 7%) (1,000,000 × 7% × 9/12)	70,000		52,500	
Minus tax at 30%	<u>(21,000)</u>		<u>(15,750)</u>	
		49,000		36,750
Adjusted total earnings		<u>2,628,000</u>		<u>2,015,750</u>

Number of shares

Year 4	Number of shares
1 January	Brought forward
	5,000,000
	Dilutions:
	Share options (W)
	200,000
	Convertible shares (1,000,000 ÷ 100 × 30)
	300,000
31 December	<u>5,500,000</u>

Year 3

Date		Number of shares	Time factor	Weighted average number of shares
1 January	Brought forward	5,000,000		
	Share options: dilution (W)	125,000		
		5,125,000	3/12	1,281,250
1 April	Convertibles: dilution	300,000		
		5,425,000	9/12	4,068,750
				<u>5,350,000</u>

Diluted EPS

Year 4 = $2,628,000 / 5,500,000 = \0.48 or 48c

Year 3 = $2,015,750 / 5,350,000 = \0.38 or 38c

Working

Cash receivable on exercise of all the options = $500,000 \times \$3 = \$1,500,000$

Year 4

Number of shares this would buy at full market price in Year 4 = $\$1,500,000 / 5 = 300,000$ shares

	Shares
Options	500,000
Minus number of shares at fair value	<u>(300,000)</u>
Net dilution	<u>200,000</u>

Year 3

Number of shares this would buy at full market price in Year 3 = $\$1,500,000 / 4 = 375,000$ shares

	Shares
Options	500,000
Minus number of shares at fair value	<u>(375,000)</u>
Net dilution	<u>125,000</u>

26 Bella

Statement of cash flows for the year ended 31 March Year 6

	\$000	\$000
Cash flows from operating activities		
Profit before taxation	4,617	
Adjustments for:		
Depreciation (W1)	300	
Loss on disposal of non-current asset (800 – 700)	100	
Interest expense	60	
	<u>5,077</u>	

	\$000	\$000
Increase in inventories (280 – 100)	(180)	
Decrease in trade and other receivables (1,350 – 1,290)	60	
Increase in trade payables (430 – 275)	155	
Cash generated from operations	5,112	
Interest paid (W3)	(45)	
Income taxes paid (W4)	(185)	
Net cash from operating activities		4,882
Cash flows from investing activities		
Purchase of property, plant and equipment	(6,000)	
Proceeds from the sale of property, plant and equipment	700	
Purchase of intangible assets (800 – 300)	(500)	
Net cash used in investing activities		(5,800)
Cash flows from financing activities		
Proceeds from the issue of share capital (W2)	865	
Issue of long-term loan (600 – 500)	100	
Dividends paid	(350)	
Net cash inflow from financing activities		615
Net decrease in cash and cash equivalents		(303)
Cash and cash equivalents at the beginning of the period		45
Cash and cash equivalents at the end of the period (55 – 313)		(258)

Workings

(1) Property, plant and equipment (PPE)

	\$000	\$000
PPE at NBV at end of year		12,900
PPE at NBV at beginning of year	8,000	
Disposals during the year at NBV	(800)	
		(7,200)
		5,700
Depreciation charge for the year (balancing figure)		300
PPE acquired during the year		6,000

(2) Share capital and premium

	Share capital	Share premium	Total
	\$000	\$000	\$000
At end of year	1,900	95	1,995
At beginning of year	1,100	30	(1,130)
Cash receipts from share issue			865

(3) Interest payable

	\$000
Accrued interest at beginning of year	25
Interest charge in the income statement	60
	<u>85</u>
Accrued interest at end of year	(40)
Interest payments in the year	<u>45</u>

(4) Current tax payable

	\$000
Tax payable at beginning of year	325
Tax charge in the income statement	400
	<u>725</u>
Tax payable at end of year	(540)
Tax payments in the year	<u>185</u>

27 Chester**Statement of cash flows for the year ended 31 December Year 5**

	\$000	\$000
Cash flows from operating activities		
Cash receipts from customers (W5)	3,510	
Cash paid to suppliers (W6)	(1,570)	
Cash paid to and on behalf of employees	(260)	
	<u>1,680</u>	
Cash generated from operations	1,680	
Income taxes paid (W4)	(120)	
	<u>1,560</u>	
Net cash from operating activities		1,560
Cash flows from investing activities		
Purchase of property, plant and equipment (W1)	(2,250)	
Proceeds from the sale of property, plant and equipment	400	
Interest received (W3)	30	
	<u>(1,820)</u>	
Net cash used in investing activities		(1,820)
Cash flows from financing activities		
Proceeds from the issue of share capital (W2)	450	
Dividends paid (W7)	(175)	
	<u>275</u>	
Net cash inflow from financing activities		275
Net decrease in cash and cash equivalents		15
Cash and cash equivalents at the beginning of the period		25
		<u>40</u>
Cash and cash equivalents at the end of the period		40

Workings**(1) Property, plant and equipment (PPE)**

	\$000	\$000
PPE at NBV at end of year		3,900
PPE at NBV at beginning of year	2,500	
Disposals during the year at NBV	(350)	
		<u>(2,150)</u>
		1,750
Depreciation charge for the year		<u>500</u>
PPE acquired during the year (balancing figure)		<u>2,250</u>

(2) Share capital and premium

	Share capital	Share premium	Total
	\$000	\$000	\$000
At end of year	1,100	200	1,300
At beginning of year	800	50	<u>(850)</u>
Cash receipts from share issue			<u>450</u>

(3) Interest receivable

	\$000
Interest receivable at beginning of year	20
Interest receivable in the income statement	<u>50</u>
	70
Interest receivable at end of year	<u>(40)</u>
Interest received in the year	<u>30</u>

(4) Current tax payable

	\$000
Tax payable at beginning of year	150
Tax charge in the income statement	<u>200</u>
	350
Tax payable at end of year	<u>(230)</u>
Tax payments in the year	<u>120</u>

(5) Cash receipts from customers

	\$000
Trade receivables at beginning of year	570
Revenue in the income statement	3,500
	<u>4,070</u>
Trade receivables at end of year	(560)
Cash receipts from customers	<u>3,510</u>

(6) Cash paid to suppliers

	\$000	\$000
Trade payables at beginning of year		320
Costs in the income statement:		
Total costs (1,400 + 400 + 340)	2,140	
Opening inventories	(320)	
Closing inventories	480	
Cash paid to and on behalf of employees	(260)	
Depreciation	(500)	
Gain on disposal of PPE (400 – 350)	50	
	<u>1,590</u>	1,590
Trade payables at end of year		<u>(340)</u>
Cash paid to suppliers		<u>1,570</u>

(7) Dividends paid

	\$000
Retained earnings at beginning of year	2,115
Profit for the period	1,210
	<u>3,325</u>
Retained earnings at end of year	<u>(3,150)</u>
Dividends paid	<u>175</u>

28 Faye**Consolidated statement of financial position as at 31 December Year 3**

	\$	\$
Non-current assets		
Property, plant and equipment at cost (10,000 + 3,000)	13,000	
Minus depreciation (5,000 + 1,000)	<u>(6,000)</u>	
		7,000

Current assets

Inventories (12,000 + 4,000)	16,000	
Receivables (15,000 + 2,000)	17,000	
Cash at bank (20,000 + 1,000)	21,000	
		54,000
		61,000

Capital and reserves

Ordinary share capital \$1 shares)	30,000	
Consolidated accumulated profits (13,000 + 2,000)	15,000	
		45,000

Current liabilities

Payables (11,000 + 5,000)		16,000
		61,000

29 Major – Part 1**(a) Consolidated statement of financial position at 31 August Year 4**

	\$
Tangible non-current assets at net book value (30,000 + 50,000)	80,000
Goodwill (W1)	20,000
	100,000
Inventories (25,000 + 30,000)	55,000
Receivables (10,000 + 40,000)	50,000
Cash at bank	10,000
	215,000
Ordinary share capital (\$1 shares)	100,000
Consolidated retained earnings (W2)	75,000
	175,000
8% loan notes (25,000 – 20,000)	5,000
Payables (15,000 + 20,000)	35,000
	215,000

(b) How the figures would differ if goodwill had suffered an impairment of \$5,000?

- Goodwill would be \$5,000 lower i.e. \$15,000.
- Consolidated retained earnings would be \$5,000 lower i.e. \$60,000.

Workings(1) **Goodwill**

	\$
Fair value of net assets acquired	
Share capital	50,000
Retained earnings	10,000
	<u>60,000</u>
Cost of the acquisition of ordinary shares	80,000
Goodwill	<u>20,000</u>

(2) **Consolidated retained earnings**

	\$
Parent retained earnings	60,000
Parent's share of subsidiary's post acquisition profits (25,000 – 10,000)	15,000
	<u>75,000</u>

30 Major – Part 2**Consolidated statement of financial position at 31 August Year 4**

	\$
Tangible non-current assets at net book value (30,000 + 50,000 + 25,000)	105,000
Inventories (25,000 + 30,000)	55,000
Receivables (10,000 + 40,000)	50,000
Cash at bank	10,000
	<u>220,000</u>
Ordinary share capital (\$1 shares)	100,000
Consolidated retained earnings (W2)	80,000
	<u>180,000</u>
8% loan notes (25,000 – 20,000)	5,000
Payables (15,000 + 20,000)	35,000
	<u>220,000</u>

Workings(1) **Goodwill**

	\$
Fair value of net assets acquired	
Share capital	50,000
Retained earnings	10,000
Minus fair value adjustments (25,000 – 5,000)	20,000
	<u>80,000</u>
Cost of the acquisition of ordinary shares	80,000
Goodwill	<u>-</u>

(2) Consolidated retained earnings

	\$
Parent retained earnings	60,000
Parent's share of subsidiary's post acquisition profits (25,000 – 10,000 + 5,000)	20,000
	80,000

31 Harry

Consolidated statement of financial position at 31 July Year 4

	\$000	\$000
Non-current assets		
Property, plant and equipment	41,000	
Freehold land	12,000	
Goodwill (W2)	1,000	
		54,000
Current assets		
Inventories (20,000 + 16,000)	36,000	
Receivables (25,000 + 15,000)	40,000	
		76,000
		130,000
	\$000	\$000
Equity and reserves		
Equity attributable to owners of the parent		
Share capital (\$1 shares)		40,000
Retained earnings		35,500
		75,500
Non-controlling interests (W4)		3,500
		79,000
Total equity		
Current liabilities		
Payables (27,000 + 24,000)		51,000
		130,000

Workings

(1) Group structure

	%
Parent share (3/4)	75
Non-controlling interests	25
	100

(2) Goodwill

	\$000
<hr/>	
Fair value of net assets acquired	
Net assets of Sally at acquisition	10,000
Fair value adjustment re land (12,000 – 10,000)	2,000
	<hr/>
	12,000
	<hr/>
Cost of the acquisition	12,000
Parent's share (x 75%) (W1)	9,000
	<hr/>
Goodwill	3,000
Minus impairment to date	(2,000)
	<hr/>
Goodwill carried forward	1,000
	<hr/>

(3) Consolidated retained earnings

Sally's retained earnings at acquisition were \$6 million (net assets per the statement of financial position were \$10 million, share capital was and is \$4,000). Therefore Sally's post acquisition retained earnings are \$2 million (\$8 million – \$6 million).

	\$000
<hr/>	
Parent retained earnings	36,000
Parent's share of subsidiary's post acquisition profits (2,000 × 75%)	1,500
Minus impaired goodwill since acquisition	(2,000)
	<hr/>
	35,500
	<hr/>

(4) Non-controlling interests

	\$000
<hr/>	
Non-controlling interests = (12,000 + 2,000) × 25% =	3,500

32 Max**Consolidated income statement for the year ended 31 December Year 3**

	\$
<hr/>	
Revenue	240,700
Cost of sales	(151,641)
	<hr/>
Gross profit	89,059
Distribution costs and administrative expenses	(28,070)
Profit before tax	60,989
Income tax expense	(31,291)
	<hr/>
Profit for the period	29,698
	<hr/>

Tutorial note

The dividends reflected in the statement of changes in equity will be Max's only, i.e. \$25,000.

Working

	Max	Min	Consolidated
	\$	\$	\$
Revenue	216,300	24,400	240,700
Cost of sales	(136,269)	(15,372)	(151,641)
Gross profit	80,031	9,028	89,059
Administrative expenses			
– Per question	(21,630)	(2,440)	
– Impairment of goodwill	(4,000)		(28,070)
Profit before tax	54,401	6,588	60,989
Income tax expense	(28,119)	(3,172)	(31,291)
Profit for the period	26,282	3,416	29,698

33 Bruce**Consolidated income statement for the year ended 30 April Year 3**

	\$
Revenue	5,554
Cost of sales	(2,482)
Gross profit	3,072
Administrative expenses	(945)
Profit before tax	2,127
Income tax expense	(1,004)
Profit for the period	1,123
	\$
Attributable to:	
Owners of the parent (balancing figure)	1,077
Non-controlling interests (W3)	46
	1,123

Workings**(1) Group structure**

	%
Parent share	80
Non-controlling interests	20
	100

(2) Consolidation schedule

	Bruce	Gavin (5/12)	Consolidated
	\$	\$	\$
Revenue	4,418	1,136	5,554
Cost of sales	(1,974)	(508)	(2,482)
Gross profit	2,444	628	3,072
Administrative expenses	(752)	(193)	(945)
Profit before tax	1,692	435	2,127
Income tax expense	(799)	(205)	(1,004)
Profit for the period	893	230	1,123

(3) Non-controlling interests

20% × Gavin's profit after tax of \$230 (W2) = \$46

34 Hack and Sack

Hack acquired 75% of the shares of Sack (= 6 million/ 8 million), by issuing 3 million shares in a 1 for 2 exchange (= 6 million × ½).

The net assets of Sack as at the acquisition date can be calculated from the values for share capital and reserves in the company's statement of financial position as at 1 July Year 3. Net assets = \$(8 + 4 + 16) million = \$28 million

(Working 1)

- Total goodwill and the value of the NCI at the acquisition date can be calculated as follows:

	\$ million
Purchase consideration paid by the parent company (3 million shares × \$8.50)	25.5
Fair value of parent company share of net assets (75% × \$28 million)	21.0
Purchased goodwill attributable to parent	4.5
	\$ million
Fair value of NCI at acquisition date (2 million × \$3.90)	7.8
NCI share of net assets at this date (25% × \$28 million)	7.0
Purchased goodwill attributable to NCI	0.8
	\$ million
Purchased goodwill attributable to parent	4.5
Goodwill attributable to NCI	0.8
Total goodwill in consolidated statement of financial position	5.3

Alternatively, total goodwill could be calculated as follows:

	\$ million
Purchase consideration paid by the parent company	25.5
Fair value of NCI at acquisition date	7.8
	<u>33.3</u>
Net assets of the subsidiary at the acquisition date (at fair value)	28.0
Total goodwill (parent and NCI)	<u>5.3</u>

(Working 2)

	\$ million
Non-controlling interests	
Proportionate share of net assets of Sack (= 25% of (37 – 5 – 2))	7.5
Goodwill attributable to NCI	0.8
Total goodwill in consolidated statement of financial position	<u>8.3</u>

(Working 3)

Hack issued 3 million new shares of \$1 at a valuation of \$8.50 each. The share premium on the new shares is therefore \$7.50 per share or \$22.5 million in total.

The consolidated statement of financial position is as follows:

**Hack Group: consolidated statement of financial position
as at 30 June Year 4**

	\$ million	\$ million
Tangible non-current assets (38 + 29)		67.0
Goodwill		5.3
		<u>72.3</u>
Current assets (14 + 8 – 0.4 acquisition costs)		21.6
Total assets		<u>93.9</u>
Equity and liabilities		
Equity attributable to owners of the parent		
Share capital (10 million + 3 million new shares of \$1)		13.0
Share premium (7.0 + 22.5 for new share issue)		29.5
Retained earnings of Hack (24 + 3)	27.0	
Share of post-acquisition retained earnings of Sack (75% × 2.0)	1.5	
Directly attributable acquisition costs	(0.4)	28.1
Equity attributable to owners of parent		<u>70.6</u>
Non-controlling interest (working 2)		8.3
Total equity		<u>78.9</u>
Non-current liabilities: 6% loan notes (5 + 5)		10.0
Current liabilities (3 + 2)		5.0
Total equity and liabilities		<u>93.9</u>

Answer to question (b)

If non-controlling interests were valued at a proportionate share of net assets of Sack, rather than by the fair value method, there would be no goodwill attributable to NCI.

Goodwill in the consolidated statement of financial position and NCI would both be lower by \$800,000.

35 Holdings

In statement of financial position of Holdings		In statement of financial position of Subsidiary	
	\$		\$
Receivable from Subsidiary	25,000	Payable to Holdings	20,000
Cash in transit	(3,000)	Goods in transit	2,000
	<u>22,000</u>		<u>22,000</u>

The balances then cancel out on consolidation.

36 Polly

(a)

	Polly	Solly	Adjustments	Consolidated
	\$	\$	\$	\$
Revenue	800	500	(50)	1,250
Cost of sales	(600)	(300)	50	(850)
Gross profit	200	200		400

(b)

	Polly	Solly	Adjustments	Consolidated
	\$000	\$000	\$000	\$000
Revenue	800	500	(50)	1,250
Cost of sales				
- Per question	(600)	(300)	50	
- Unrealised profit		(5)		(855)
Gross profit	<u>200</u>	<u>195</u>		<u>395</u>

Unrealised profit in inventory

Inventory held at year end	%	\$000
Selling price (50 x 1/2)	125	25
Cost	(100)	(20)
Unrealised profit	<u>25</u>	<u>5</u>

(c)

	Polly	Solly	Adjustments	Consolidated
	\$	\$	\$	\$
Revenue	800	500	(50)	1,250
Cost of sales				
- Per question	(600)	(300)	50	
- Unrealised profit		(6.25)		(856.25)
Gross profit	<u>200</u>	<u>193.75</u>		<u>393.75</u>

Unrealised profit in inventory

Inventory held at year end	%	\$000
Selling price (50 x 1/2)	100	25
Cost	(75)	(18.75)
Unrealised profit	<u>25</u>	<u>6.25</u>

37 Parent

Consolidated income statement for the year ended 31 December Year 4

	\$000
Revenue	1,300.0
Cost of sales	<u>(607.5)</u>
Gross profit	692.5
Administrative expenses	<u>(430.0)</u>
Profit before tax	262.5
Income tax expense	<u>(90.0)</u>
Profit for the period	<u>172.5</u>
	\$000
Attributable to:	
Owners of the parent (balancing figure)	165.25
Non-controlling interests (W3)	<u>7.25</u>
	<u>172.5</u>

Workings

(1) **Group structure**

	%
Parent share	90
Non-controlling interests	10
	100

(2) Consolidation schedule

	Parent	Subsidiary	Adjustments	Consolidated
	\$000	\$000	\$000	\$000
Revenue	900	700	(300)	1,300
Cost of sales				
- Per question	(500)	(400)	300	
- Unrealised profit (W4)		(7.5)		(607.5)
Gross profit	400	292.5		692.5
Administrative expenses	(250)	(180)		(430)
Profit before tax	150	112.5		262.5
Income tax expense	(50)	(40)		(90)
Profit for the period	100	72.5		172.5

(3) Non-controlling interests

10% × 72,500 (W2) = \$7,250

(4) Unrealised profit in inventory

Inventory held at year end	%	\$000
Selling price	133	30.0
Cost	(100)	(22.5)
Unrealised profit	33	7.5

38 Porthos**Consolidated statement of financial position**

	\$
Investment in associate (W)	391,000

Consolidated income statement

Share of profits of associate (30% × 50,000)	15,000
--	--------

Working**Investment in associate**

	\$
Investment at cost	350,000
Investor's share of post-acquisition profits of Aramis (30% × (400,000 – 250,000))	45,000
Minus accumulated impairment in the investment	(4,000)
	391,000

39 Anna**Investment in associate**

Reduce by group share of unrealised profit in inventory held by Anna purchased from Paula ($\$6,400 (W) \times 30\%$) = $\$1,920$.

Consolidated inventory (Paula + Susie)

Reduce by unrealised profit in inventory purchased by Paula from Susie = $\$16,000 (W)$.

Consolidated retained earnings (Paula plus group share of post-acquisition profits of Susie + group share of post-acquisition profits of Anna)

Reduce by

- group share of unrealised profit in inventory sold by Susie to Paula ($\$16,000 (W) \times 60\%$) = $\$9,600$, and
- group share of unrealised profit in inventory sold by Paula to Anna ($\$6,400 (W) \times 30\%$) = $\$1,920$.

Non-controlling interests

Reduce by non-controlling interests' share of unrealised profit in inventory sold by Susie to Paula ($\$16,000 (W) \times 40\%$) = $\$6,400$.

*Working***Unrealised profit in inventory**

		Held by Paula	Held by Anna
Inventory held at year end	%	\$	\$
Selling price	125	80,000	32,000
Cost	(100)	(64,000)	(25,600)
Unrealised profit	25	16,000	6,400

40 Sam**Ratios**

	Year 7	Year 6
Gross profit % =		
$\frac{\text{Gross profit}}{\text{Sales}} \times 100$	$\frac{405}{2,160} \times 100 = 19\%$	$\frac{362}{1,806} \times 100 = 20\%$
Net profit % =		
$\frac{\text{Net profit}}{\text{Sales}} \times 100$	$\frac{9}{2,160} \times 100 = 0.4\%$	$\frac{53}{1,806} \times 100 = 2.9\%$
Return on capital employed =		
	$\frac{15}{246} \times 100 = 6\%$	$\frac{56}{190} \times 100 = 29\%$

$$\frac{\text{Profit before interest and tax}}{\text{Share capital and reserves} + \text{Long-term debt capital}}$$

Asset turnover =

$$\frac{\text{Sales}}{\text{Share capital and reserves} + \text{Long-term debt capital}} \times 100 \quad \frac{2,160}{246} = 8.8 \text{ times} \quad \frac{1,806}{190} = 9.5 \text{ times}$$

Current ratio =

$$\frac{\text{Current assets}}{\text{Current liabilities}} \quad \frac{422}{254} = 1.7 \text{ times} \quad \frac{265}{147} = 1.8 \text{ times}$$

Quick ratio =

$$\frac{\text{Current assets excluding inventory}}{\text{Current liabilities}} \quad \frac{422 - 106}{254} = 1.2 \text{ times} \quad \frac{265 - 61}{147} = 1.4 \text{ times}$$

Average time to collect =

$$\frac{\text{Trade receivables}}{\text{Sales}} \times 365 \quad \frac{316 \times 365}{2,160} = 53 \text{ days} \quad \frac{198 \times 365}{1,806} = 40 \text{ days}$$

Average time to pay =

$$\frac{\text{Trade payables}}{\text{Cost of purchases}} \times 365 \quad \frac{198 \times 365}{1,755} = 41 \text{ days} \quad \frac{142 \times 365}{1,444} = 36 \text{ days}$$

Inventory turnover =

$$\frac{\text{Inventory}}{\text{Cost of sales}} \times 365 \quad \frac{106 \times 365}{1,755} = 22 \text{ days} \quad \frac{61 \times 365}{1,444} = 15 \text{ days}$$

Commentary**Profitability**

Although revenue has increased by 20% this has not led to increased profitability, as shown by the gross profit and net profit percentages.

The gross profit percentage is largely unchanged suggesting that Sam has maintained its profit margins.

However, the net profit percentage has fallen significantly (from 2.9% to 0.4%). There may be increased costs because of the increased level of business (e.g. recruitment of new employees) but it may also mean that overheads are getting out of control.

Return on capital employed has fallen even more significantly (from 29% to 6%). The asset base has increased over the last year and revenue has increased accordingly, but the company has not been able to maintain its profitability.

Efficiency/liquidity

Inventory turnover has also fallen (from 15 days to 22 days) showing that, whilst there has been an increased volume of business, Sam is exercising less control over working capital as the amount tied up in inventory has increased.

However, the main indicators of liquidity, the current and quick ratios, show that there has been little change in the last year, suggesting that Sam is not having problems meeting its debts as they fall due.

The average time to collect debts has worsened from 40 days to 53 days. This may indicate a loss of credit control or that more favourable terms have been given to customers in order to gain sales. In either case, it indicates an increased bad debt risk, although, to some extent, it is mitigated by the small increase in average time to pay from 36 to 41 days.

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Chris and Caroline

Ratios

	Chris	Caroline
Gross profit % =		
$\frac{\text{Gross profit}}{\text{Sales}} \times 100$	$\frac{90,000}{150,000} \times 100 = 60\%$	$\frac{490,000}{700,000} \times 100 = 70\%$
Net profit % =		
$\frac{\text{Net profit}}{\text{Sales}} \times 100$	$\frac{44,895}{150,000} \times 100 = 30\%$	$\frac{270,830}{700,000} \times 100 = 39\%$
Return on capital employed =		
$\frac{\text{Profit before interest and tax}}{\text{Share capital and reserves} + \text{Long - term debt capital}} \times 100$	$\frac{61,500 + 500}{207,395 + 10,000} \times 100 = 28.5\%$	$\frac{371,000 + 12,000}{565,580 + 250,000} \times 100 = 47\%$
Asset turnover =		
$\frac{\text{Sales}}{\text{Share capital and reserves} + \text{Long - term debt capital}} \times 100$	$\frac{150,000}{207,395 + 10,000} = 0.7 \text{ times}$	$\frac{700,000}{565,580 + 250,000} = 0.85 \text{ times}$
Current ratio =		
$\frac{\text{Current assets}}{\text{Current liabilities}}$	$\frac{50,000}{22,605} = 2.2 \text{ times}$	$\frac{153,250}{117,670} = 1.3 \text{ times}$
Quick ratio =		
$\frac{\text{Current assets excluding inventory}}{\text{Current liabilities}}$	$\frac{50,000 - 12,000}{22,605} = 1.7 \text{ times}$	$\frac{153,250 - 26,250}{117,670} = 1.1 \text{ times}$

Table continues

	Chris	Caroline
Average time to collect = $\frac{\text{Trade receivables}}{\text{Sales}} \times 365$	$\frac{37,500}{150,000} \times 365 = 91 \text{ days}$	$\frac{105,000}{700,000} \times 365 = 55 \text{ days}$
Average time to pay = $\frac{\text{Trade payables}}{\text{Cost of purchases}} \times 365$	$\frac{22,605}{60,000} \times 365 = 137 \text{ days}$	$\frac{117,670}{210,000} \times 365 = 204 \text{ days}$
Inventory turnover = $\frac{\text{Inventory}}{\text{Cost of sales}} \times 365$	$\frac{12,000}{60,000} \times 365 = 73 \text{ days}$	$\frac{26,250}{210,000} \times 365 = 46 \text{ days}$
Gearing ratio = $\frac{\text{Long - term debt}}{\text{Share capital and reserves}} \times 100$	$\frac{10,000}{207,395} \times 100 = 4.8\%$	$\frac{250,000}{565,580} \times 100 = 44\%$
Interest cover = $\frac{\text{Profit before interest and tax}}{\text{Interest charges in the year}}$	$\frac{61,500 + 500}{500} = 124 \text{ times}$	$\frac{371,000 + 12,000}{12,000} = 32 \text{ times}$

Commentary

Profitability

The return on capital employed achieved by Chris (28.5%) is substantially lower than that achieved by Caroline (47%). This variation in performance is also seen at the gross profit (60% compared to 70%) and net profit levels (30% compared to 39%).

The variation in gross profit percentage could be caused by differences in sales mix, inventory valuation methods or mark-up.

Since these entities operate in the same sector it is unlikely that their selling prices differ significantly. However, Caroline, as a much larger entity, may be able to negotiate better prices from its suppliers.

Caroline is also more efficient at using its assets. It is generating 85c per \$1 of assets whereby Chris is only generating 70c per \$1.

Efficiency/liquidity

The liquidity of both entities appears satisfactory, although Caroline has less funds tied up in its current assets. Caroline is also more efficient at collecting its debts (55 days compared to Chris's 91 days), and takes a longer credit period from its suppliers.

Solvency

Caroline is much more highly geared than Chris (44% compared to 4.8%). Caroline has the ability to raise debt more easily because of its greater profitability and its property, on which debt can be secured. Both companies can easily cover their interest payments suggesting that neither entity's debt is at risk.

Conclusion

Caroline is the stronger entity.



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