CIMA

STUDY TEXT

MANAGEMENT

PAPER F2

FINANCIAL MANAGEMENT

Our text is designed to help you study **effectively** and **efficiently**.

In this edition we:

- **Highlight** the **most important elements** in the syllabus and the **key skills** you will need
- **Signpost** how each chapter links to the syllabus and the learning outcomes
- **Provide** lots of **exam alerts** explaining how what you're learning may be tested
- **Include examples** and **questions** to help you apply what you've learnt
- **Emphasise key points** in **section summaries**
- **Test your knowledge** of what you've studied in **quick quizzes**
- **Examine your understanding** in our **exam question bank**
- **Reference all the important topics** in the **full index**

SUITABLE FOR EXAMS UP TO SEPTEMBER 2014

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Contents

How our Study Text can help you pass

Streamlined studying	• We show you the best ways to study efficiently • Our Text has been designed to ensure you can easily and quickly navigate through it • The different features in our Text emphasise important knowledge and techniques
Exam expertise	• **Studying F2** on page xi introduces the key themes of the syllabus and summarises how to pass • We highlight throughout our Text how topics may be tested and what you'll have to do in the exam • We help you see the complete picture of the syllabus, so that you can answer questions that range across the whole syllabus • Our Text covers the syllabus content – no more, no less
Regular review	• We frequently summarise the key knowledge you need • We test what you've learnt by providing questions and quizzes throughout our Text

Our other products

BPP Learning Media also offers these products for the F2 exam:

Practice and Revision Kit	Providing lots more question practice and helpful guidance on how to pass the exam
Passcards	Summarising what you should know in visual, easy to remember, form
Success CDs	Covering the vital elements of the F2 syllabus in less than 90 minutes and also containing exam hints to help you fine tune your strategy
i-Pass	Providing computer-based testing in a variety of formats, ideal for self-assessment
Interactive Passcards	Allowing you to learn actively with a clear visual format summarising what you must know

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Features in our Study Text

Section Introductions explain how the section fits into the chapter

Key Terms are the core vocabulary you need to learn

Key Points are points that you have to know, ideas or calculations that will be the foundations of your answers

Exam Alerts show you how subjects are likely to be tested

Exam Skills are the key skills you will need to demonstrate in the exam, linked to question requirements

Formulae To Learn are formulae you must remember in the exam

Exam Formulae are formulae you will be given in the exam

Examples show how theory is put into practice

Questions give you the practice you need to test your understanding of what you've learnt

Case Studies link what you've learnt with the real-world business environment

Links show how the syllabus overlaps with other parts of the qualification, including Knowledge Brought Forward that you need to remember from previous exams

Website References link to material that will enhance your understanding of what you're studying

Further Reading will give you a wider perspective on the subjects you're covering

Section Summaries allow you to review each section

Streamlined studying

What you should do	In order to
Read the Chapter and Section Introductions	See why topics need to be studied and map your way through the chapter
Go quickly through the explanations	Gain the depth of knowledge and understanding that you'll need
Highlight the Key Points, Key Terms and Formulae To Learn	Make sure you know the basics that you can't do without in the exam
Focus on the Exam Skills and Exam Alerts	Know how you'll be tested and what you'll have to do
Work through the Examples and Case Studies	See how what you've learnt applies in practice
Prepare Answers to the Questions	See if you can apply what you've learnt in practice
Revisit the Section Summaries in the Chapter Roundup	Remind you of, and reinforce, what you've learnt
Answer the Quick Quiz	Find out if there are any gaps in your knowledge
Answer the Question(s) in the Exam Question Bank	Practise what you've learnt in depth

Should I take notes?

Brief notes may help you remember what you're learning. You should use the notes format that's most helpful to you (lists, diagrams, mindmaps).

Further help

BPP Learning Media's *Learning to Learn Accountancy* provides lots more helpful guidance on studying. It is designed to be used both at the outset of your CIMA studies and throughout the process of learning accountancy. It can help you **focus your studies on the subject and exam**, enabling you to **acquire knowledge**, **practise and revise efficiently and effectively**.

Syllabus and learning outcomes

Paper F2 Financial Management

The syllabus comprises:

Topic and Study Weighting

A	Group Financial Statements	35%
B	Issues in Recognition and Measurement	20%
C	Analysis and Interpretation of Financial Accounts	35%
D	Developments in External Reporting	10%

Learning Outcomes					
Lead		**Component**		**Syllabus content**	
A	**Group financial statements**				
1	Prepare the full consolidated statements of a single company and the consolidated statements of financial position and comprehensive income for a group (in relatively complex circumstances)	(a)	Prepare a complete set of consolidated financial statements in a form suitable for a group of companies	(i)	Relationships between investors and investees, meaning of control and circumstances in which a subsidiary is excluded from consolidation
		(b)	Demonstrate the impact on group financial statements where: there is a non-controlling interest; the interest in a subsidiary or associate is acquired or disposed of part way through an accounting period (to include the effective date of acquisition and dividends out of pre-acquisition profits); shareholdings, or control, are acquired in stages; intra-group trading and other transactions occur; the value of goodwill is impaired	(ii)	The preparation of consolidated financial statements (including the group cash flow statement and statement of changes in equity) involving one or more subsidiaries, sub-subsidiaries and associates (IAS 1 (revised), 7 and 27, IFRS 3)
				(iii)	The treatment in consolidated financial statements of minority interests, pre- and post-acquisition reserves, goodwill (including its impairment), fair value adjustments, intra-group transactions and dividends, piece-meal and mi-year acquisitions, and disposals to include sub-subsidiaries and mixed groups
		(c)	Apply the concept of a joint arrangement and how the two types (joint operations and joint ventures) are accounted for	(iv)	The accounting treatment of associates and joint ventures (IAS 28 and 31) using the equity method and proportional consolidation method

Learning Outcomes					
Lead		**Component**		**Syllabus content**	
2	Explain the principles of accounting for capital schemes and foreign exchange rate changes	(a)	Explain the principles of accounting for a capital reconstruction scheme or a demerger	(i)	Accounting for reorganisations and capital reconstruction schemes
		(b)	Explain foreign currency translation principles, including the distinction between functional and presentation currency and accounting for overseas transactions and investments in overseas subsidiaries	(ii)	Foreign currency translation (IAS 21), to include overseas transactions and investments in overseas subsidiaries
		(c)	Explain the correct treatment for foreign loans financing foreign equity investments		
B	**Issues in recognition and measurement**				
1	Discuss accounting principles and their relevance to accounting issues of contemporary interest	(a)	Discuss the problems of profit measurement and alternative approaches to asset valuations	(i)	The problems of profit measurement and the effect of alternative approaches to asset valuation; current cost and current purchasing power bases and the real terms system; Financial Reporting in Hyperinflationary Economies (IAS 29)
		(b)	Discuss measures to reduce distortion in financial statements when price levels change	(ii)	The principle of substance over form and its influence in dealing with transactions such as sale and repurchase agreements, consignment stock, debt factoring, securitised assets, loan transfers and public and private sector financial collaboration
		(c)	Discuss the principle of substance over form applied to a range of transactions	(iii)	Financial instruments classified as liabilities or shareholders funds and the allocation of finance costs over the term of the borrowing (IAS 32 and 39)
		(d)	Discuss the possible treatments of financial instruments in the issuer's accounts (ie liabilities versus equity, and the implications for finance costs)	(iv)	The measurement, including methods of determining fair value, and disclosure of financial instruments (IAS 32 and 39, IFRS 7)
		(e)	Discuss circumstances in which amortised cost, fair value and hedge accounting are appropriate for financial instruments, the principles of these accounting methods and considerations in the measurement of fair value	(v)	Retirement benefits, including pension schemes – defined benefit schemes and defined contribution schemes, actuarial deficits and surpluses (IAS 19)
		(f)	Discuss the recognition		

Learning Outcomes					
Lead		**Component**		**Syllabus content**	
			and valuation issues concerned with pension plans (including the treatment of remeasurement gains and losses) and share-based payments	(vi)	Share-based payments (IFRS 2): types of transactions, measurement bases and accounting determination of fair value
C	**Analysis and interpretation of financial accounts**				
1	Produce a ratio analysis from financial statements and supporting information	(a)	Interpret a full range of accounting ratios	(i)	Ratios in the areas of performance, profitability, financial adaptability, liquidity, activity, shareholder investment and financing, and their interpretation
		(b)	Discuss the limitations of accounting ratio analysis and analysis based on financial statements	(ii)	Calculation of Earnings per Share under IAS 33, to include the effect of bonus issues, rights issues and convertible stock
				(iii)	The impact of financing structure, including use of leasing and short-term debt, on ratios, particularly gearing
				(iv)	Limitations of ratio analysis (eg comparability of businesses and accounting policies)
2	Evaluate performance and position	(a)	Analyse financial statements in the context of information provided in the accounts and corporate report	(i)	Interpretation of financial statements via the analysis of the accounts and corporate reports
		(b)	Evaluate performance and position based on analysis of financial statements	(ii)	The identification of information required to assess financial performance and the extent to which financial statements fail to provide such information
		(c)	Discuss segmental analysis, with inter-firm and international comparisons taking account of possible aggressive or unusual accounting policies and pressures on ethical behaviour	(iii)	Interpretation of financial obligations included in financial accounts (eg redeemable debt, earn-out arrangements, contingent liabilities)
				(iv)	Segment analysis: inter-firm and international comparison (IFRS 8)
				(v)	The need to be aware of aggressive or unusual accounting practice ('creative accounting'), eg in the areas of cost capitalisation and revenue recognition, and threats to the ethics of accountants from pressure to report 'good results'
		(d)	Discuss the results of an analysis of financial statements and its limitations	(vi)	Reporting the results of analysis

D	Developments in external reporting				
1	Discuss contemporary developments in financial and non-financial reporting	(a)	Discuss pressures for extending the scope and quality of external reports to include prospective and non-financial matters, and narrative reporting generally	(i)	Increasing stakeholder demands for information that goes beyond historical financial information and frameworks for such reporting, including as an example of national requirements and guidelines, the UK's Business Review and the Accounting Standard Board's best practice standard, RS1, and the Global Reporting Initiative
		(b)	Explain how information concerning the interaction of a business with society and the natural environment can be communicated in the published accounts	(ii)	Environmental and social accounting issues, differentiating between externalities and costs internalised through, for example, capitalisation of environmental expenditure, recognition of future environmental costs by means of provisions, taxation and the costs of emissions permit trading schemes
		(c)	Discuss social and environmental issues which are likely to be most important to stakeholders in an organisation	(iii)	Non-financial measures of social and environmental impact
		(d)	Explain the process of measuring, recording and disclosing the effect of exchanges between a business and society – human resource accounting	(iv)	Human resource accounting
				(v)	Major differences between IFRS and US GAAP, and progress towards convergence
		(e)	Discuss major differences between IFRS and US GAAP, and the measures designed to contribute towards their convergence		

Studying F2

1 What's F2 about

The Paper F2 syllabus is in four parts:

- Group financial statements
- Issues in recognition and measurement
- Analysis and interpretation
- Developments in external reporting.

1.1 Group financial statements

This is given a weighting of 35%. However, there could be as many as 45 marks available. It is important, therefore, that you study all aspects of this topic in full.

It is vital that you get a good grasp of the basics and the principles. There are a lot of easy marks available for basic consolidation techniques. You should not, however, concentrate on the 'hows' of the calculation to the exclusion of the 'whys', which will always be tested in some form. For example, you may be asked to explain a group structure and then to produce consolidated financial statements. Your explanation will help directly in your calculation.

You should focus most of your efforts on the consolidated statements of financial position and profit or loss and other comprehensive income.

1.2 Issues in recognition and measurement

This part of the syllabus involves explaining the problems of profit measurement and alternative approaches to asset valuations. Thus you will need to understand the weaknesses of historical cost accounting and the advantages, disadvantages and basic mechanics of alternative approaches. You will also need to apply relevant accounting standards, all of which are covered in this Study Text. This section is worth 20%.

1.3 Analysis and interpretation

With a weighting of 35%, this is an important area, unsurprisingly, given that the title of the paper is Financial Management, rather than Financial Accounting. There will generally be two analysis and interpretation questions on each paper. They will take slightly different forms, one being a conventional ratio analysis report and another discussing, for example, the impact of adopting a particular accounting policy.

Discussion is every bit as important as calculation in this section. The examiner has indicated that candidates spend too much time calculating ratios and too little time evaluating them. Credit is often given for different conclusions drawn, provided these can be backed up with sensible arguments.

Conversely, you should not 'waffle' in analysis questions, something the examiner has also criticised. Practice is the key in this area. You should try every question in the Study Text and Revision Kit, even if you end up only doing answer plans for some of them.

1.4 Developments in external reporting

Worth 10%, this section is not as important as group accounts or analysis. However, it is a good way to earn marks. You will not have to know exposure drafts.

The main focus at the moment is on harmonisation, for example with US GAAP. Paper F2 is based only on International Financial Reporting Standards, and you may well have to discuss the advantages of these and the practical problems of implementing them. Other topical issues include environmental accounting, or the Operating and Financial Review. Questions on these areas are fairly straightforward; again, structuring your answers is the key.

2 What's required

2.1 Knowledge

The exam requires you to demonstrate knowledge as much as application. Bear in mind this comment from the examiner, from her report on an exam under the old syllabus:

> *At the top end, some candidates scored very highly indeed, producing a full complement of excellent answers. However, a substantial minority of candidates appeared to have virtually no useable knowledge of the syllabus.*

2.2 Explanation

As well as stating your knowledge, you will also sometimes be asked to demonstrate the more advanced skill of explaining the requirements of accounting standards. Explaining means providing simple definitions and covering the reasons why regulations have been made and what the problems are that the standards are designed to counter. The examiner has stated that the key to remember is '**because**'. If you have answered the '**because**' element, then this is a full answer. You'll gain higher marks if your explanations are clearly focused on the question and you can supplement your explanations with examples.

2.3 Calculations

The examiner does not usually set purely numerical questions. It is more likely that you will have to use calculations to support your explanations or arguments. It goes without saying that all workings should be shown and referenced. Not only is it professional, but it enables the examiner to give you credit by following through your answer if you make a mistake early on.

2.4 Interpretation and recommendation

As discussed above, you may have to interpret and draw conclusions from any figures or ratios you have calculated. Your arguments should be logical and structured.

You must also be aware of the key verbs used by the examiner in the exam. These are reproduced in full in the exam question and answer bank.

2.5 What the examiner means

The table below has been prepared by CIMA to help you interpret the syllabus and learning outcomes and the meaning of exam questions.

You will see that there are 5 levels of Learning objective, ranging from Knowledge to Evaluation, reflecting the level of skill you will be expected to demonstrate. CIMA Certificate subjects were constrained to levels 1 to 3, but in CIMA's Professional qualification the entire hierarchy will be used.

At the start of each chapter in your study text is a topic list relating the coverage in the chapter to the level of skill you may be called on to demonstrate in the exam.

Learning objectives	Verbs used	Definition
1 Knowledge What are you expected to know	• List • State • Define	• Make a list of • Express, fully or clearly, the details of/facts of • Give the exact meaning of
2 Comprehension What you are expected to understand	• Describe • Distinguish • Explain • Identify • Illustrate	• Communicate the key features of • Highlight the differences between • Make clear or intelligible/state the meaning of • Recognise, establish or select after consideration • Use an example to describe or explain something
3 Application How you are expected to apply your knowledge	• Apply • Calculate/ compute • Demonstrate • Prepare • Reconcile • Solve • Tabulate	• Put to practical use • Ascertain or reckon mathematically • Prove with certainty or to exhibit by practical means • Make or get ready for use • Make or prove consistent/compatible • Find an answer to • Arrange in a table
4 Analysis How you are expected to analyse the detail of what you have learned	• Analyse • Categorise • Compare and contrast • Construct • Discuss • Interpret • Prioritise • Produce	• Examine in detail the structure of • Place into a defined class or division • Show the similarities and/or differences between • Build up or compile • Examine in detail by argument • Translate into intelligible or familiar terms • Place in order of priority or sequence for action • Create or bring into existence
5 Evaluation How you are expected to use your learning to evaluate, make decisions or recommendations	• Advise • Evaluate • Recommend	• Counsel, inform or notify • Appraise or assess the value of • Propose a course of action

3 How to pass

3.1 Cover the whole syllabus?

Ideally, yes. The examiner has stated that any syllabus topic could be examined. In view of the weighting, however, it makes sense to focus most of your efforts on groups and financial analysis. Leaving topics out is not advisable, but if you are forced to do this through lack of time, then make sure you do not leave out any aspects of these very important topics. At least get an overview of any topic not covered, by skim reading or reading Passcards.

3.2 Practise

Our text gives you ample opportunity to practise by providing questions within chapters, quick quiz questions and questions in the exam question bank at the end. In addition the BPP Practice and Revision Kit provides lots more question practice. It's particularly important to practise:

- Ten mark questions, mostly knowledge based with some calculations.
- Longer scenario questions, of the type to be found in Section B

3.3 Develop time management skills

The examiner has identified time management as being a problem, with some candidates not leaving themselves enough time to do the shorter calculations. Particularly therefore towards the end of your course, you need to practise all types of question, only allowing yourself the time you will be given in the exam.

3.4 Develop business awareness

Candidates with good business awareness can score well in a number of areas.

- Reading articles in CIMA's *Financial Management* magazine and the business press will help you understand the practical rationale for accounting standards and make it easier for you to apply accounting requirements correctly
- Looking through the accounts of major companies will familiarise you with the contents of accounts and help you comment on key figures and changes from year-to-year

4 Brought forward knowledge

The examiner may test knowledge or techniques you've learnt at lower levels. As F2 is part of the Financial pillar, the content of paper F1 will be significant.

The exam paper

Format of the paper

		Number of marks
Section A:	Five compulsory medium answer questions, each worth 10 marks. Short scenarios may be given, to which some or all questions relate	50
Section B:	One or two compulsory questions. Short scenarios may be given, to which questions relate	50
		100

Time allowed: 3 hours, plus 20 minutes reading time

CIMA guidance

Good answers demonstrate knowledge and show understanding in the application thereof. Reading the scenario where applicable should give you clues on what issues or tools to use.

Weaker answers tend to repeat book knowledge without applying it to the question set. Candidates who fail reveal a lack of knowledge or depth in their understanding.

The key to passing this paper is to understand the concepts and techniques in the syllabus and show you can apply these to whatever situation presents itself in the exam.

Students should be able to:

- Prepare consolidated accounts and explain the accounting principles associated with this area, such as changes part way through an accounting period
- Appropriately employ relevant accounting standards
- Evaluate a business entity's financial statements and provide analysis of performance
- Explain the problems of profit measurement and alternative approaches to asset valuations
- Discuss and evaluate current developments in external reporting

Numerical content

The paper is approximately half numerical and half written. Both numerical and discursive parts are likely to be included in all sections of the paper.

Breadth of question coverage

Short scenarios may be given in Section A and some questions may be wholly discursive. Section B questions may be scenario-based and areas across the syllabus may be covered in one question.

Knowledge from other syllabuses

Candidates should also use their knowledge brought forward from paper F1.

May 2013 exam paper

Section A

1 Defined benefit pension plan

2 Goodwill, consolidated retained earnings and NCI

3 Ratio and trend analysis

4 Financial instruments

5 Human resource accounting

Section B

6 Consolidated statement of profit or loss and other comprehensive income and statement of changes in equity with NCI, foreign currency translation and impairment of goodwill

7 Analysis of financial performance and position for a potential investor and discussion of further information that would be useful in making the investment decision

March 2013 exam paper

Section A

1 Defined benefit pension plan and share-based payment

2 Goodwill, consolidated retained earnings, NCI and business combinations achieved in stages

3 Earnings per share with changes in capital structure, ratio analysis

4 Financial instruments

5 Environmental reporting

Section B

6 Consolidated statement of cash flows; bonus issue of shares

7 Analysis of performance and position for an expanding company using ratios; limitations of financial analysis based on published annual reports

November 2012 exam paper

Section A

1 Defined benefit pension plan; hyperinflation

2 Goodwill, consolidated retained earnings and NCI

3 Ratio analysis for working capital and liquidity

4 Financial instruments; foreign currency translation

5 International harmonisation; *Conceptual Framework*

Section B

6 Consolidated statement of financial position with NCI; financial instruments

7 Analysis of performance and position for a potential investor; discussion of further information that would be useful in making the investment decision; limitations of financial ratios

September 2012 exam paper

Section A

1 Defined benefit pension plan and share-based payment

2 Consolidated statement of cash flows with associate and NCI

3 Analysis of key financial indicators for a potential investor; limitations of financial analysis

4 Financial instruments

5 Human resource accounting and narrative reporting

Section B

6 Consolidated statement of financial position; discussion of treatment of business combinations achieved in stages; financial instruments

7 Analysis of performance and position for a potential investor using ratio analysis and earnings per share; discussion of further information that would be useful in making the investment decision

May 2012 exam paper

Section A

1 Defined benefit pension plan and share-based payment

2 Goodwill, consolidated retained earnings and NCI

3 Statement of cash flows and report for potential investor

4 Financial instruments

5 Human resource accounting

Section B

6 Consolidated statement of profit or loss and other comprehensive income and statement of changes in equity; discussion of treatment of investments in step acquisitions

7 Analysis of performance and position for a potential investor and discussion of further information that would be useful in making the investment decision

March 2012 exam paper

Section A

1 Share-based payments

2 Foreign exchange gain or loss; consolidated statement of profit or loss and other comprehensive income

3 Global Reporting Initiative

4 Financial instruments

5 Operating segments

Section B

6 Disposal of shares in subsidiary; consolidated statement of financial position

7 Analysis of financial performance including calculating ratios; contingent liabilities

November 2011 exam paper

Section A

1 Consolidated statement of financial position including joint arrangements

2 Sale of land; whether to consolidate another entity's results

3 Basic and diluted earnings per share

4 Financial instruments; pensions

5 Convergence and its benefits

Section B

6 Consolidated statement of profit or loss and other comprehensive income; IAS 21

7 Report analysing financial performance including calculating ratios; limitations of ratio analysis

September 2011 exam paper

Section A

1 Consolidated statement of financial position

2 Financial instruments; share options

3 Environmental reports

4 Substance over form; inflation accounting

5 Ratio analysis

Section B

6 Consolidated statement of cash flows

7 Report analysing financial performance including calculating ratios; earnings per share

May 2011 exam paper

Section A

1 Defined benefit pension plan and share-based payment

2 Consolidated statement of changes in equity with step acquisition

3 Discussion of usefulness of segment reporting

4 Financial instruments

5 Discussion of advantages and drawbacks of including voluntary narrative disclosures in the annual report

Section B

6 Consolidated statement of profit or loss and other comprehensive income and statement of financial position for a group with a foreign subsidiary

7 Analysis of performance and position for a potential investor and discussion of further information that would be useful in making the investment decision

March 2011 exam paper

Section A

1 Consolidated statement of profit or loss and other comprehensive income with subsidiary and associate

2 Discussion on human resource accounting

3 Share-based payment and defined benefit pension plan

4 Financial instruments

5 Financial analysis of a statement of cash flows

Section B

6 Consolidated statement of financial position with mid-year acquisition and fair value adjustments

7 Analysis of performance and position for an individual contemplating accepting employment with an entity, and discussion of limitations of ratio analysis

November 2010 exam paper

Section A

1 Share-based payment

2 Discussion on human resource accounting

3 Consolidated statement of profit or loss and other comprehensive income with subsidiary and associate

4 Financial instruments

5 Financial analysis (with pre-calculated ratios)

Section B

6 Consolidated statement of financial position with step acquisition

7 Analysis of performance and position in the context of a loan application

May 2010 exam paper

Section A

1 Classification of investments
2 Substance over form; share-based payments
3 Earnings per share
4 Consolidated statement of financial position workings: goodwill, consolidated retained earnings, NCI
5 Convergence between IFRS and US GAAP

Section B

6 Consolidated statement of profit or loss and other comprehensive income
7 Report on expansion plan, including ratio analysis

Specimen exam paper

Section A

1 Consolidated statement of profit or loss and other comprehensive income
2 Environmental reporting
3 Financial instruments, including accounting adjustments; share-based payments
4 Off-balance sheet finance; consolidated statement of financial position
5 Asset valuation and changing prices

Section B

6 Consolidated statement of cash flows
7 Report on a takeover target, including ratio analysis

ISSUES IN RECOGNITION AND MEASUREMENT

Part A

SUBSTANCE OVER FORM AND REVENUE RECOGNITION

This is a very topical area and has been for some time. Companies (and other entities) have in the past used the **legal form** of a transaction to determine its accounting treatment, when in fact the **substance** of the transaction has been very different. We will look at the question of **substance over form** and the kind of transactions undertaken by entities trying to avoid reporting true substance in Sections 1 and 2.

The main weapon in tackling these abuses is the IASB's *Framework for the Preparation and Presentation of Financial Statements* because it applies **general definitions** to the elements that make up financial statements. We will look at how this works in Section 3.

Sections 4 and 5 deal with examples of common abuses and a standard brought in to counter one form: **revenue recognition.**

1

topic list	learning outcomes	syllabus references	ability required
1 Off-balance sheet finance explained	B1	B1 (ii)	Application
2 Substance over form	B1	B1 (ii)	Application
3 The IASB's *Framework for the preparation and presentation of financial statements*	B1	B1 (ii)	Application
4 Common forms of off-balance sheet finance	B1	B1 (ii)	Application
5 Revenue recognition	B1	B1 (ii)	Application

1 Off-balance sheet finance explained

Introduction

'Off-balance sheet transactions' are transactions which are not fully disclosed in the statement of financial position. Such transactions may involve the **removal of assets** from the statement of financial position, as well as liabilities, and they are also likely to have a significant impact on profit or loss.

KEY TERM

OFF-BALANCE SHEET FINANCE is the funding or refinancing of a company's operations in such a way that, under legal requirements and traditional accounting conventions, some or all of the finance may not be shown in its statement of financial position.

1.1 Why off-balance sheet finance exists

Why might company managers wish to enter into such transactions?

(a) In some countries, companies traditionally have a lower level of gearing than companies in other countries. Off-balance sheet finance is used to **keep gearing low**, probably because of the views of analysts and brokers.

(b) A company may need to keep its gearing down in order to stay within the terms of **loan covenants** imposed by lenders.

(c) A quoted company with high borrowings is often expected (by analysts and others) to declare a **rights issue** in order to reduce gearing. This has an adverse effect on a company's share price and so off-balance sheet financing is used to reduce gearing *and* the expectation of a rights issue.

(d) Analysts' short term views are a problem for companies **developing assets** which are not producing income during the development stage. Such companies will match the borrowings associated with the developing assets, along with the assets themselves, off-balance sheet. They are brought back into the statement of financial position once income is being generated by the assets. This process keeps return on capital employed higher than it would have been during the development stage.

(e) In the past, groups of companies have excluded **subsidiaries** from consolidation in an off-balance sheet transaction because they carry out completely different types of business and have different characteristics. The usual example is a leasing company (in say a retail group) which has a high level of gearing. This exclusion is now disallowed.

You can see from this brief list of reasons that the overriding motivation is to avoid **misinterpretation**. In other words, the company does not trust the analysts or other users to understand the reasons for a transaction and so avoids any effect such transactions might have by taking them off-balance sheet. Unfortunately, the position of the company is then misstated and the user of the financial statements is misled.

You must understand that not all forms of 'off-balance sheet finance' are undertaken for cosmetic or accounting reasons. Some transactions are carried out to **limit or isolate risk**, to reduce interest costs and so on. In other words, these transactions are in the best interests of the company, not merely a cosmetic repackaging of figures which would normally appear in the statement of financial position.

1.2 The off balance sheet finance problem

The result of the use of increasingly sophisticated off-balance sheet finance transactions is a situation where the users of financial statements do not have a proper or clear view of the **state of the company's affairs**. The disclosures required by national company law and accounting standards did not in the past provide sufficient rules for disclosure of off-balance sheet finance transactions and so very little of the true nature of the transaction was exposed.

Whatever the purpose of such transactions, **insufficient disclosure** creates a problem: if transactions were accounted for merely by recording their **legal form**, the accounting may not reflect the **real economic effect** of the transaction.

This problem has been debated over the years by the accountancy profession and other interested parties and some progress has been made (see the later sections of this chapter). However, company collapses during recessions have often revealed much higher borrowings than originally thought, because part of the borrowing was off-balance sheet.

IAS 8 *Accounting policies, changes in accounting estimates and errors* requires that an entity's accounting policies 'reflect the **economic substance** of transactions, other events and conditions, and not merely the **legal form**.'

Section summary

The subject of **off-balance sheet finance** is a complex one which has plagued the accountancy profession. In practice, off-balance sheet finance schemes are often very sophisticated and these are beyond the range of this syllabus.

2 Substance over form 5/10, 9/11

Introduction

This is a very important concept. It is used to **determine accounting treatment** in financial statements through accounting standards and so prevent off-balance sheet transactions. The following paragraphs give examples of where the principle of substance over form is enforced in various accounting standards.

KEY TERM

SUBSTANCE OVER FORM. The principle that transactions and other events are accounted for and presented in accordance with their substance and economic reality and not merely their legal form.

2.1 IAS 18 *Revenue*

Revenue and expenses from the sale of goods is recognised when the conditions set out in IAS 18 are met. Generally, recognition should be when it is probable that **future economic benefits** will flow to the entity and when these benefits can be **measured reliably**.

The application of IAS 18 is a crucial part of the substance over form concept. We will discuss the standard in more detail in Section 5 below.

2.2 IAS 17 *Leases*

In IAS 17, there is an explicit requirement that if the lessor transfers substantially all the **risks and rewards of ownership** to the lessee, then, even though the legal title has not necessarily passed, the item being leased should be shown as an asset in the statement of financial position of the lessee and the amount due to the lessor should be shown as a liability.

2.3 IAS 24 *Related party disclosures*

IAS 24 requires financial statements to disclose fully any material transactions undertaken with a related party by the reporting entity, **regardless of any price charged**.

2.4 IAS 11 *Construction contracts*

In IAS 11, there is a requirement to account for **attributable profits** on construction contracts under the accruals basis of accounting. However, there may be a problem with realisation, since it is arguable whether we should account for profit which, although attributable to the work done, may not have been invoiced to the customer. The convention of substance over form is applied to justify ignoring the strict legal position.

2.5 IFRS 10 *Consolidated financial statements*

IFRS 10 *Consolidated financial statements* requires **structured entities** (previously known as '**special purpose entities**') to be consolidated in group consolidated financial statements.

We will look at this again in Section 4.4, and the topic of structured entities will be discussed in more detail in Chapter 6.

You may also hear the term **creative accounting** used in the context of reporting the substance of transactions. This can be defined simply as the manipulation of figures for a desired result. Remember, however, that it is very rare for a company, its directors or employees to manipulate results for the purpose of fraud. The major consideration is usually the effect the results will have on the company's share price.

Some areas open to abuse (although some of these loopholes have been closed) are given below and you should by now understand how these can distort a company results.

(a) Income recognition and cut-off

(b) Impairment of purchased goodwill

(c) Manipulation of reserves

(d) Revaluations and depreciation

(e) Window dressing – transactions undertaken, eg loans repaid just before the year end and then reversed in the following period.

(f) Changes in accounting policy

Exam alert

The May 2010 exam included a 5 mark part question on determining the economic substance of a transaction.

Question 1.1 Creative accounting

Learning outcomes B1

Creative accounting, off balance sheet finance and related matters (in particular how ratio analysis can be used to discover these practices) often come up in articles in the financial press. Find a library, preferably a good technical library, which can provide you with copies of back issues of such newspapers or journals and look for articles on creative accounting.

Section summary

Substance over form means that a transaction is accounted for according to its economic reality rather than its legal form.

3 The IASB's *Framework for the preparation and presentation of financial statements*

11/11

Introduction

As noted above, the IASB's *Framework for preparation and presentation of financial statements* (referred to throughout this Text thereafter as '*Framework*') states that accounting for items according to substance and economic reality and not merely legal form is a key determinant of reliable information

(a) For the majority of transactions there is **no difference** between the two and therefore no issue.

(b) For other transactions **substance and form diverge** and the choice of treatment can give different results due to non-recognition of an asset or liability even though benefits or obligations result.

The *Framework* is due to be replaced by the Conceptual Framework for Financial Reporting, which is currently being develop by the IASB. We will look at the *Conceptual Framework* in Chapter 17. For The purposes of the exam, all references to the Framework relate to the *Framework for the preparation and presentation of financial statements*. However, you should be aware of the new developments with regards to the *Conceptual Framework*.

Full disclosure is not enough: all transactions must be **accounted for** correctly, with full disclosure of related details as necessary to give the user of accounts a full understanding of the transactions.

3.1 Relationship to IFRSs

The interaction of the *Framework* **with other standards** is also an important issue. Whichever rules are the more specific should be applied, given that IFRSs should be consistent with the *Framework*.

Leasing provides a good example: straightforward leases which fall squarely within the terms of IAS 17 should be accounted for without any need to refer to the *Framework*, but where their terms are more complex, or the lease is only one element in a larger series of transactions, then the *Framework* comes into play. In addition, the *Framework* implicitly requires that its general principle of substance over form should apply in the application of other existing rules.

3.2 Basic principles

The first step in determining whether a transaction should be recorded or disclosed in the financial statements is deciding whether the transaction concerned meets the definition of an **element** of the financial statements according to the Framework, or changes an existing element.

If the definition of an element is met, the transaction will be recognised if it meets the **recognition criteria**, as described in Section 3.4 below.

3.3 Definitions

The elements of the financial statements are defined as follows in the *Framework*.

KEY TERMS

An ASSET is a resource **controlled** by an entity as a result of **past events** and from which **future economic benefits** are expected to flow to the entity.

A LIABILITY is a **present obligation** of the entity arising from **past events**, the settlement of which is expected to result in an **outflow** from the entity of resources embodying economic benefits. *(Framework)*

Identification of **who has the risks** relating to an asset will generally indicate **who has the benefits** and hence **who has the asset**. If an entity is in certain circumstances unable to avoid an **outflow of benefits**, this will provide evidence that it has a liability.

The definitions given in the IASB *Framework* of income and expenses are not as important as those of assets and liabilities. This is because income and expenses are **described in terms of changes in assets and liabilities**, ie they are secondary definitions.


KEY TERMS

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

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

The real importance, then, is the way the *Framework* defines assets and liabilities. This forces entities to acknowledge their assets and liabilities regardless of the legal status.

3.4 Recognition


KEY TERM

RECOGNITION is the process of incorporating in the statement of financial position or statement of profit or loss and other comprehensive income an item that meets the definition of an element and satisfies the criteria for recognition set out below. It involves the depiction of the item in words and by a monetary amount and the inclusion of that amount in the statement of financial position or statement of profit or loss and other comprehensive income totals.

The next key question is deciding **when** an asset or a liability has to be recognised in the statement of financial position. Where a transaction results in an item that meets the definition of an asset or liability, that item should be recognised in the statement of financial position if:

(a) it is **probable** that any **future economic benefit** associated with the item will flow **to** or **from the entity**, and
(b) the item has a cost or value that can be **measured reliably**.

This effectively prevents entities abusing the definitions of the elements by recognising items that are vague in terms of likelihood of occurrence and measurability. If this were not in force, entities could **manipulate the financial statements** in various ways, eg recognising assets when the likely future economic benefits cannot yet be determined.

Probability is assessed based on the situation at the end of the reporting period. For example, it is usually expected that some customers of an entity will not pay what they owe. The expected level of non-payment is based on past experience and the receivables asset is reduced by a percentage (the general bad debt provision).

Measurement must be reliable, but it does not preclude the use of **reasonable estimates**, which is an essential part of the financial statement preparation.

Even if something does not qualify for recognition now, it may meet the criteria **at a later date**.

3.5 Other standards

The *Framework* provides the general guidance for reporting the substance of transactions and preventing off balance sheet finance. The IASB has developed guidance for specific transactions. These were mentioned in Section 2 and they are covered in various parts of this text. You should consider the particular off-balance sheet finance problem they tackle as you study them.

- IAS 17 *Leases* (covered in Paper F1)

- IAS 18 *Revenue* (see Section 5)
- IAS 39 *Financial instruments: Recognition and Measurement* (in respect of the recognition and derecognition of financial assets and liabilities, such as loans. See Chapter 2)

Other areas where the *Framework* is important include:

- IFRS 10 *Consolidated financial statements* (see Chapter 6)
- IAS 24 *Related party disclosures* (covered in Paper F1)
- Harmonisation (see Chapter 17)
- Human resource accounting (see Chapter 18)

Section summary

Important points to remember from the *Framework* are:

- **Substance over form**
- Definitions of **assets** and **liabilities**
- Definition of **recognition**
- **Criteria** for recognition

4 Common forms of substance over form

Introduction

How does the theory of the *Framework* **apply in practice**, to real transactions? The rest of this section looks at some complex transactions that occur frequently in practice.

We will consider how the principles of the *Framework* would be applied to these transactions.

- Consignment inventory
- Sale and repurchase agreements/sale and leaseback agreements
- Factoring of receivables/debts
- Loan transfers/securitised assets

4.1 Consignment inventory

Consignment inventory is an arrangement where inventory is held by one party (say a dealer) but is owned by another party (for example a manufacturer or a finance company). Consignment inventory is common in the motor trade and is similar to goods sold on a 'sale or return' basis.

To identify the correct treatment, it is necessary to identify the point at which the dealer acquired the risks and benefits of the asset (the inventory item) rather than the point at which legal title was acquired.

4.1.1 Summary of indications of asset status

The following lists out some indications as to which company, the manufacturer or the dealer, has the risks and benefits of the asset. We will use the example of the automobile business for illustrative purposes.

Indications that ownership of the inventory belongs to the manufacturer	Indications that ownership of the inventory belongs to the dealer
Benefits:	
Price fixed at the date of legal transfer	Price fixed at delivery date

Indications that ownership of the inventory belongs to the manufacturer	Indications that ownership of the inventory belongs to the dealer
Manufacturer can require dealer to return inventory	Manufacturer cannot require dealer to return inventory
Dealer pays penalty for distance driven on test vehicles	Dealer can use vehicles for test purposes without penalty
Risks:	
Dealer has a right to return obsolete inventory	Dealer has no right of return
Dealer does not pay finance charge on slow-moving inventory	Dealer pays a finance charge
Manufacturer pays for the insurance	Dealer pays for the insurance
Dealer invoiced for financing when the dealer sells the inventory to third parties	Dealer invoiced for financing on the delivery of the inventory

4.1.2 Required accounting

The following apply where it is concluded that the inventory **is in substance an asset** of the dealer.

(a) The inventory should be recognised as such in the dealer's statement of financial position, together with a corresponding liability to the manufacturer.

(b) Any deposit should be deducted from the liability and the excess classified as a trade payable.

Where it is concluded that the inventory is **not in substance an asset** of the dealer, the following apply.

(a) The inventory should not be included in the dealer's statement of financial position until the transfer of risks and rewards has crystallised.

(b) Any deposit should be included under 'other receivables'.

Exam alert

If journal entries are required in the exam, you must write them out in the following format:

DEBIT X

CREDIT X

Being [narrative description of what the journal relates to, ie depreciation of property, plant and equipment for the year]

Question 1.2 Recognition

Learning outcomes B1

Daley Motors Co owns a number of car dealerships throughout a geographical area. The terms of the arrangement between the dealerships and the manufacturer are as follows.

(a) Legal title passes when the cars are either used by Daley Co for demonstration purposes or sold to a third party.

(b) The dealer has the right to return vehicles to the manufacturer without penalty. (Daley Co has rarely exercised this right in the past.)

(c) The transfer price is based on the manufacturer's list price at the date of delivery.

(d) Daley Co makes a substantial interest-free deposit based on the number of cars held.

Should the asset and liability be recognised by Daley Co at the date of delivery?

4.2 Sale and repurchase agreements

These are arrangements under which the company sells an asset to another person on terms that allow the company to **repurchase the asset** in certain circumstances. A common example is the sale and repurchase of maturing whisky inventories.

The key question is whether the transaction is a **straightforward sale**, or whether it is, in effect, a **secured loan**. It is necessary to look at the arrangement to determine who has the rights to the economic benefits that the asset generates, and the terms on which the asset is to be repurchased.

If the seller keeps the right to the risks and benefits of the **use of the asset**, and the repurchase terms are such that the **repurchase is likely** to take place, the transaction should be accounted for as a **loan**. The repurchase of the asset would be recorded as a loan repayment.

4.2.1 Summary of indications of the sale of the asset

The following summary is helpful.

Indications that ownership of the asset has been transferred	Indications that ownership of the asset has not been transferred (secured loan)
Normal customer	Unusual customer (ie financial institution)
Sale price at market value	Sale price is less than **market value** at date of sale.
Normal timing	Unusual timing (eg a vineyard 'sells' unmatured wine and buys it back just in time to sell it to the public)
Option to repurchase the asset that is unlikely to be exercised, or offers no advantage over the rest of the market.	Obligation for **seller to repurchase** asset, or option to repurchase that is likely to be exercised
Risk of **changes in asset value** borne by buyer	Risk of **changes in asset value** borne by seller such that buyer receives solely a lender's return (eg repurchase price equals sale price plus costs plus interest)
Nature of the asset is such that it will be used over the life of the agreement, and seller has no rights to **determine its use**. Seller has no rights to determine asset's development or future sale.	Seller retains right to **determine asset's use**, development or sale, or rights to associated profits.

4.2.2 Required accounting

Where the substance of the transaction is that of a **secured loan**:

(a) The seller should continue to recognise the original asset and record the proceeds received from the buyer as a liability.

(b) Interest, however designated, should be accrued.

(c) The carrying amount of the asset should be reviewed for impairment and written down if necessary.

The table below shows a comparison between the accounting treatment of a normal sale and that of a secured loan.

Accounting treatment	
Normal sale	**Secured loan**
If selling property, plant and equipment: Derecognise asset from statement of financial position and recognise profit/loss on disposal in profit or loss. *If selling inventory:* Record revenue from sale	*When selling asset:* Keep asset in statement of profit or loss. Record sales proceeds as loan. *Each year:* Record interest as finance cost in profit or loss and increase value of loan.
If selling property, plant and equipment: DEBIT Cash CREDIT Property, plant and equipment DEBIT/CREDIT Profit/loss on disposal *If selling inventory:* DEBIT Cash CREDIT Revenue	*When selling asset:* DEBIT Cash CREDIT Loan *Each year:* DEBIT Finance cost CREDIT Loan

4.2.3 Sale and leaseback transactions

A sale and leaseback transaction involves the sale of an asset and the leasing back of the same asset. The lease payment and the sale price are usually negotiated as a package.

The accounting treatment depends upon the type of lease involved. If the transaction results in a **finance lease**, then it is in substance a loan from the lessor to the lessee (the lessee has sold the asset and then leased it back), with the asset as security. In this case, any 'profit' on the sale should not be recognised as such, but should be deferred and amortised over the lease term.

If the transaction results in an **operating lease** and the transaction has been conducted at fair value, then it can be regarded as a normal sale transaction. The asset is derecognised and any profit on the sale is recognised. The operating lease instalments are treated as lease payments, rather than repayments of capital plus interest.

Question 1.3 Sale and repurchase

Learning outcomes B1

X Co are brandy distillers. They normally hold inventories for six years before selling it.

A large quantity of two-year old inventories has been sold to a bank at cost. The normal selling price is cost + 100% profit. X Co has an option to buy back the brandy in four years' time at a price which represents the original sale price plus interest at current market rates.

Required

Explain how the sale of the inventory transaction should be treated in X Co's financial statements in accordance with IFRS. Prepare any necessary journal entries to record the sale of the inventory in X Co's financial statements.

4.3 Factoring of receivables

Where debts or receivables are factored, the original creditor **sells the debts to the factor**. The sales price may be fixed at the outset or may be adjusted later. It is also common for the factor to offer a credit

facility that allows the seller to draw upon a proportion of the amounts owed (ie to receive cash immediately).

In order to determine the correct accounting treatment, it is necessary to consider whether the risks of the debts has been passed on to the factor, or whether the factor is, in effect, providing a loan on the security of the receivables.

If the seller has to **pay interest** on the difference between the amounts advanced to him and the amounts that the factor has received, and if the seller bears the **risks of non-payment** by the debtor, then the indications would be that the transaction is, in effect, a loan.

4.3.1 Summary of indications of appropriate treatment

The following summarises some indications of whether the ownership of the debts have passed from the seller (the original creditor) to the factor, or whether they remain with the seller.

Indications the debts belong to the seller	Indications that the debts do not belong to the seller
Finance cost varies with speed of collection of debts.	Transfer is for a single non-returnable fixed sum.
There is full recourse to the seller for losses (ie debts over a certain age are returned to the seller for repayment).	There is no recourse to the seller for losses (ie. bad debts cannot be returned to the seller for repayment).
Seller pays a finance charge on outstanding debts.	Seller does not pay a finance charge on outstanding debts.

4.3.2 Accounting treatment

Where the ownership of the receivables has been transferred from the seller to the factor, the receivables should be removed from its statement of financial position.

Where the seller retains ownership of the receivables, an asset representing the receivables balance should be shown in the statement of financial position of the seller within assets, and a corresponding liability in respect of the proceeds received from the factor should be shown within liabilities.

The interest element of the factor's charges should be recognised as it accrues and included in profit or loss with other interest charges. Other factoring costs should be similarly accrued.

Accounting treatment	
Seller transfers ownership of receivables to factor	**Seller retains ownership of receivables**
Derecognise receivables from statement of financial position.	Keep receivables in seller's statement of financial position. Record factor proceeds as a **loan**.
When selling receivables: DEBIT Cash CREDIT Trade receivables	*When selling receivables:* DEBIT Cash CREDIT Loan

Accounting treatment	
Seller transfers ownership of receivables to factor	**Seller retains ownership of receivables**
No further journals.	*If factor collects cash from customers:* DEBIT Loan CREDIT Trade receivables *If factor returns debts to seller:* DEBIT Loan CREDIT Cash And DEBIT Bad debt expense CREDIT Trade receivables

Question 1.4

Debt factoring

Learning outcomes B1

Apple Co sells all of its trade receivables to Factor Co, the terms of the arrangement being as follows.

(a) Factor Co administers the sales ledger of Apple Co charging 1% of factored debts.

(b) Factor Co maintains a ledger detailing transactions with Apple Co. The account is debited with any amounts advanced to Apple Co (the amount is restricted to 75% of all factored debts) and credited with amounts collected by Factor Co from debtors.

(c) Interest is charged on a daily basis at national base rate + 3%.

(d) Any debts not recovered after 90 days are transferred back to Apple Co for immediate cash payment.

(e) On termination the balance on the factoring account is settled in cash.

Required

Explain the accounting treatment and the journal required in Apple Co's financial statements when they sell the receivables to Factor Co.

4.4 Structured entities (special purpose entities)

KEY TERM

A **STRUCTURED ENTITY** is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. (IFRS 12 *Disclosures of interests in other entities.*)

At first glance, these entities do not appear to be subsidiaries. However, if they meet the definition of **control** according to IFRS 10 *Consolidated financial statements*, they behave like subsidiaries in substance, and should therefore be consolidated.

KEY POINT

The syllabus also mentions the question of control in **structured entities**. This will be dealt with in Chapter 6.

4.5 Loan transfers/securitised assets

These are similar to the **factoring of receivables**, such as loans receivable being transferred to a third party or to a **structured entity** (set up for that specific purpose) as part of a financing scheme.

Whether the debts should be derecognised and cash received treated as a loan depends on which party bears the risks and benefits of ownership.

Benefits include the future cash flows from payments of principal and interest.

Risks would include credit risk, slow payment risk, variable interest rate risk, early redemption risk and moral risk (moral obligation to fund any losses on the loans).

Section summary

We have looked at some of the **major types** of substance-over-form transactions, including factoring, sales and leaseback, and consignment inventory.

5 Revenue recognition 11/11

Introduction

Accruals accounting is based on the **matching of costs with the revenue they generate**.

5.1 Introduction

It is crucially important in accruals accounting that we can establish the point at which revenue may be recognised in the statement of profit or loss so that the correct treatment can be applied to the related costs. For example:

- The costs of producing an item of finished goods should be carried as an asset in the statement of financial position until such time as it is sold.
- When the item is sold, a **sale is recorded in profit or loss** (the revenue from the sale recognised and the related costs expensed) as the **asset is derecognised in the statement of financial position**.

Which of these two treatments should be applied cannot be decided until it is clear at what moment the sale of the item takes place.

The decision has a **direct impact on profit**, since it would be unacceptable to recognise the profit on sale until a sale had taken place in accordance with the criteria of revenue recognition.

Revenue is generally recognised as **earned at the point of sale**, because at that point four criteria will generally have been met.

(a) The goods or service have been **provided to the buyer**.

(b) The buyer has **recognised his liability** to pay for the goods or services provided. The converse of this is that the seller has recognised that ownership of goods has passed from himself to the buyer.

(c) The buyer has indicated his **willingness to hand over cash** or other assets in settlement of his liability.

(d) The **monetary value** of the goods or services has been established.

At earlier points in the business cycle, there will not in general be **firm evidence** that the above criteria will be met. Until work on a product is complete, there is a risk that some flaw in the manufacturing

process will necessitate its writing off; even when the product is complete there is no guarantee that it will find a buyer.

At later points in the business cycle, for example when cash is received for the sale, the recognition of revenue may occur quite some time after related costs were charged. Revenue recognition would then depend on fortuitous circumstances, such as the cash flow of a company's customers, and might fluctuate misleadingly from one period to another.

There are times when revenue is **recognised at other times than at the completion of a sale** – for example, in the recognition of profit on long-term construction contracts. Under IAS 11 *Construction contracts,* contract revenue and contract costs associated with the construction contract should be recognised as revenue and expenses respectively, by reference to the stage of completion of the contract activity at the end of the reporting period.

(a) Because of the length of time taken to complete such contracts, if we defer recording revenue and costs until completion, this may cause the statement of profit or loss and other comprehensive income to be skewed by the contracts which have been completed by the year end, rather than reflecting a fair view of the company's activities throughout the year.

(b) Revenue in this case is recognised when production on, say, a section of the total contract is complete, even though no sale can be made until the whole is complete.

5.2 IAS 18 Revenue

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

Income, as defined by the IASB's *Framework* (see Section 3.3 above), includes both revenues and gains. Revenue is income arising in the ordinary course of an entity's activities and it may be called different names, such as sales, fees, interest, dividends or royalties.

Exam alert

You may typically be asked to discuss how a transaction should be accounted for in accordance with the principles of IAS 18 *Revenue* and the *Framework*. As the examinable transactions tend to involve sale of goods, it is important to know the revenue recognition criteria for the sale of goods under IAS 18.

5.3 Scope

IAS 18 covers the revenue from specific types of transaction or events.

- **Sale of goods** (manufactured products and items purchased for resale)
- **Rendering of services**
- Use by others of entity assets yielding **interest, royalties and dividends**

For your exam, the first type of transaction is the most important one. When the entity has transferred the risks and rewards of ownership, in substance the asset no longer belongs to the entity and therefore the asset should be derecognised (ie removed from the books), and a sale should be recorded.

Interest, royalties and dividends are included as income, because they arise from the use of an entity's assets by other parties.

KEY TERMS

INTEREST is the charge for the use of cash or cash equivalents or amounts due to the entity.

ROYALTIES are charges for the use of non-current assets of the entity, eg patents, computer software and trademarks.

DIVIDENDS are distributions of profit to holders of equity investments, in proportion with their holdings, of each relevant class of capital.

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

5.4 Definitions

REVENUE is the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants. (*IAS 8*)

FAIR VALUE is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (*IFRS 13*)

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

5.5 Measurement of revenue

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

5.6 Identification of the transaction

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

At the other end of the scale, **seemingly separate transactions must be considered together** if apart they lose their commercial meaning. An example would be to sell an asset with an agreement to buy it back at a later date. The second transaction cancels the first and so both must be considered together. We looked at sale and repurchase in paragraph 4.2.

5.7 Sale of goods

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

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

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

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

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

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

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

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

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

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

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

Example: accounting for sale

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

Solution

He will recognise revenue of $100,000 ($500 × 200) and an associated expense of $3,000 ($100 × 200 × 15%).

Section summary

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

Chapter Roundup

- ✓ The subject of **off-balance sheet finance** is a complex one which has plagued the accountancy profession. In practice, off-balance sheet finance schemes are often very sophisticated and these are beyond the range of this syllabus.
- ✓ **Substance over form** means that a transaction is accounted for according to its economic reality rather than its legal form.
- ✓ Important points to remember from the *Framework* are:
  - **Substance over form**
  - Definitions of **assets** and **liabilities**
  - Definition of **recognition**
  - **Criteria** for recognition
- ✓ We have looked at some of the **major types** of off-balance sheet finance, including factoring, sale and leaseback and consignment inventory.
- ✓ Revenue recognition is straightforward in most business transactions, but some situations are more complicated and give some opportunities for manipulation.

Quick Quiz

1 Why do companies want to use off-balance sheet finance?

2 How does the *Framework* describe substance over form?

3 What is a quasi subsidiary?

4 How has the use of quasi subsidiaries been curtailed?

5 What are the common features of transactions whose substance is not readily apparent?

6 When should a transaction be recognised?

Answers to Quick Quiz

1 The overriding motivation is to avoid misinterpretation. However the result is that users are misled.

2 The principle that transactions and other events are accounted for and presented in accordance with their substance and economic reality rather than merely their legal form.

3 An entity that does not fulfil the definition of a subsidiary but is directly or indirectly controlled by the reporting entity and gives rise to benefits that are in substance no different from those arising if it were a subsidiary.

4 By IFRS 10 – the definition of a subsidiary based on **power** rather than ownership.

5 (a) The legal title is separated from the ability to enjoy benefits.

(b) The transaction is linked to others so that the commercial effect cannot be understood without reference to the complete series.

(c) The transaction includes one or more options under such terms that it is likely the option(s) will be exercised.

6 When it is probable that a future inflow or outflow of economic benefit to the entity will occur and the item can be measured in monetary terms with sufficient reliability.

Answers to Questions

1.1 Creative accounting

Well done if you did this research.

1.2 Recognition

(a) Legal form is irrelevant
(b) Yes: only because rarely exercised (otherwise 'no')
(c) Yes
(d) Yes: the dealership is effectively forgoing the interest which could be earned on the cash sum

1.3 Sale and repurchase

Although legally X Co has sold the inventories, they have not transferred the risks and benefits and in substance, this is not a true sale but a loan. The following unusual terms of the agreement support the conclusion that this is a secured loan:

(a) Unusual customer (bank)

(b) Unusual timing/price (sold two-year-old goods at cost and usually sell six-year-old at cost plus 100% mark up)

(c) Option to buy back on maturity of brandy (keep benefits)

(d) Option likely to be exercised given that this represents X Co's inventories in trade

(e) The bank receives a lender's return.

As a result:

(a) Inventories should remain on X Co's statement of financial position at cost

(b) An equivalent amount reflected as a liability:

DEBIT Cash

CREDIT Loan

Being recording sale of inventories as a loan.

(c) The interest should be recognised as a finance cost in profit or loss over the four years of the agreement:

DEBIT Finance cost

CREDIT Loan

Being interest accrued on the loan.

1.4 Debt factoring

On the sale of the receivables, Factor Co has the legal title. However, in substance, Apple Co retains the risks inherent in the receivables:

(a) Debts older than 90 days can be returned by the factor to Apple Co so Apple Co keeps the bad debt risk.

(b) Apple Co has to pay the factor interest on outstanding balances so Apple Co retains the slow movement risk.

The receivables should stay on the statement of financial position of Apple Co until they either go bad or the factor collects the amounts owing from the customers.

Any amounts advanced by the factor should be shown as a loan:

DEBIT Cash

CREDIT Loan

Being recognition of factor proceeds as a loan.

Now try this question from the Exam Question Bank

Number	Level	Marks	Time
Q1	Examination	10	18 mins

FINANCIAL INSTRUMENTS

Financial instruments sounds like a daunting subject, and indeed this is a complex and controversial area. The numbers involved in financial instruments are often huge, but don't let this put you off. In this chapter we aim to simplify the topic as much as possible and to focus on the important issues.

2

topic list	learning outcomes	syllabus references	ability required
1 Financial instruments	B1	B1 (iii), (iv)	Application
2 Presentation of financial instruments	B1	B1 (iii), (iv)	Application
3 Recognition of financial instruments	B1	B1 (iii), (iv)	Application
4 Measurement of financial instruments	B1	B1 (iii), (iv)	Application
5 Hedging	B1	B1 (iii), (iv)	Application
6 Disclosure of financial instruments	B1	B1 (iii), (iv)	Application

1 Financial instruments

Introduction

If you read the financial press you will probably be aware of **rapid international expansion** in the use of financial instruments. These vary from straightforward, traditional instruments, eg bonds, through to various forms of so-called 'derivative instruments'.

Exam alert

IAS 39 is being replaced by IFRS 9 *Financial Instruments,* currently a work in progress. However, IFRS 9, which will not come into force until 2015, is not examinable in 2013.

1.1 Background

The dynamic nature of international financial markets has resulted in the widespread use of a variety of financial instruments. Prior to the issue of IAS 32, many financial instruments were '**off-balance-sheet**', being neither recognised nor disclosed in the financial statements while still exposing the shareholders to significant risks.

Why was a project to create a set of accounting standards for financial instruments was considered necessary?

(a) The **significant growth of financial instruments** over recent years has outstripped the development of guidance for their accounting.

(b) The topic is of **international concern**.

(c) There have been recent **high-profile disasters** involving derivatives (eg Barings) which, while not caused by accounting failures, have raised questions about accounting and disclosure practices.

These are three Standards on financial instruments:

(a) IAS 32 *Financial instruments: Presentation*, which deals with:

  (i) The classification of financial instruments between liabilities and equity
  (ii) Presentation of certain compound instruments

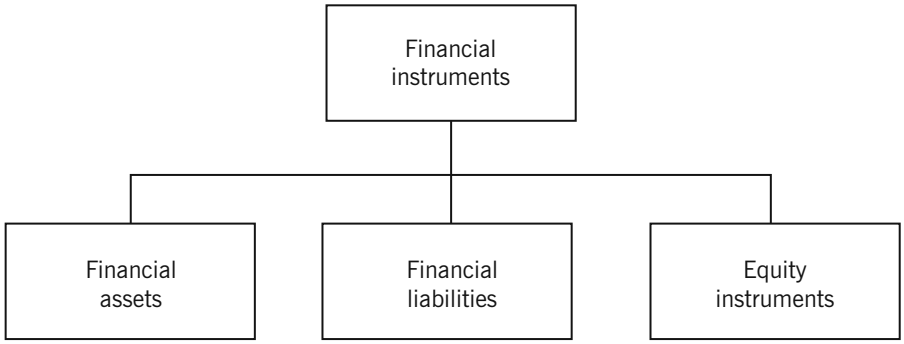
(b) IFRS 7 *Financial instruments: Disclosures*, which revised, simplified and incorporated disclosure requirements previously in IAS 32.

(c) IAS 39 *Financial instruments: Recognition and measurement*, which deals with:

  (i) Recognition and derecognition
  (ii) The measurement of financial instruments
  (iii) Hedge accounting

1.2 Classifications (IAS 32)

Financial instruments fall into three categories, summarised in the diagram below.



Financial liabilities are treated as 'debt' in financial analysis and equity instruments as 'equity'. Their classification is therefore fundamental to the accuracy of the gearing calculation.

1.3 Definitions

The most important definitions are common to all three Standards.

KEY TERMS

FINANCIAL INSTRUMENT. Any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.

FINANCIAL ASSET. Any asset that is:

(a) cash

(b) an equity instrument of another entity

(c) a contractual right:

  (i) to receive cash or another financial asset from another entity; or

  (ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity; or

(d) a contract that will or may be settled in the entity's own equity instruments.

For example:

- trade receivables;
- options;
- shares (as an investment).

FINANCIAL LIABILITY. Any liability that is:

(a) a contractual obligation:

  (i) to deliver cash or another financial asset to another entity, or

  (ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the entity; or

(b) a contract that will or may be settled in the entity's own equity instruments.

For example:

- trade payables;
- debenture loans (payable);
- mandatorily redeemable preference shares;
- cumulative irredeemable preference shares;
- forward contracts standing at a loss.

EQUITY INSTRUMENT. Any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

For example:

- own ordinary shares;
- warrants;
- non-cumulative irredeemable preference shares.


KEY TERMS

FAIR VALUE is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. (*IFRS 13*)

DERIVATIVE. A financial instrument or other contract with all three of the following characteristics:

(a) its value changes in response to the change in an underlying variable (for example, share price or interest rate)

(b) it requires little or no initial net investment; and

(c) it is settled at a future date.

Exam alert

These definitions are very important – particularly for financial assets, financial liabilities and equity instruments – so learn them.

We should clarify some points arising from these definitions. Firstly, one or two terms above should be themselves defined.

(a) A '**contract**' need not be in writing, but it must comprise an agreement that has 'clear economic consequences' and which the parties to it cannot avoid, usually because the agreement is enforceable in law.

(b) An '**entity**' here could be an individual, partnership, incorporated body or government agency.

The definitions of **financial assets and financial liabilities** may seem rather circular, referring as they do to the terms financial asset and financial instrument. The point is that there may be a chain of contractual rights and obligations, but it will lead ultimately to the receipt or payment of cash *or* the acquisition or issue of an equity instrument.

Financial instruments include both of the following.

(a) **Primary instruments**: eg receivables, payables and equity securities

(b) **Derivative instruments**: eg financial options, futures and forwards, interest rate swaps and currency swaps, **whether recognised or unrecognised**

IAS 32 makes it clear that the following items are *not* financial instruments.

- **Physical assets**, eg inventories, property, plant and equipment, leased assets and intangible assets (patents, trademarks etc)
- **Prepaid expenses**, deferred revenue and most warranty obligations
- Liabilities or assets that are **not contractual** in nature
- Contractual rights/obligations that **do not involve transfer of a financial asset**, eg commodity futures contracts, operating leases

Question 2.1 Why not?

Learning outcomes B1

Can you give the reasons why the first two items listed above do not qualify as financial instruments?

Contingent rights and obligations meet the definition of financial assets and financial liabilities respectively, even though many do not qualify for recognition in financial statements. The reason for this is the contractual rights or obligations exist because of a past transaction or event (eg assumption of a guarantee).

1.4 Derivatives

A **derivative** is a financial instrument that **derives** its value from the price or rate of an underlying item. As seen above, it has three characteristics, as follows.

(a) Its value changes in response to an underlying variable eg share price or interest rate.
(b) It requires little or no initial net investment.
(c) It is settled at a future date.

Common **examples** of derivatives include:

(a) **Forward contracts**: agreements to buy or sell an asset at a fixed price at a fixed future date

(b) **Futures contracts**: similar to forward contracts except that contracts are standardised and traded on an exchange

(c) **Options**: rights (but not obligations) for the option holder to exercise at a pre-determined price; the option writer loses out if the option is exercised

(d) **Swaps**: agreements to swap one set of cash flows for another (normally interest rate or currency swaps).

The nature of derivatives often gives rise to **particular problems**. The **value** of a derivative (and the amount at which it is eventually settled) depends on **movements** in an underlying item (such as an exchange rate). This means that settlement of a derivative can lead to a very different result from the one originally envisaged. A company which has derivatives is exposed to **uncertainty and risk** (potential for gain or loss) and this can have a very material effect on its financial performance, financial position and cash flows.

Yet, because a derivative contract normally has **little or no initial cost**, under traditional accounting it **may not be recognised** in the financial statements at all. Alternatively, it may be recognised at an amount which bears no relation to its current value. This is clearly **misleading** and leaves users of the financial statements unaware of the **level of risk** that the company faces. IAS 32 and 39 were developed in order to correct this situation.

1.5 Overview

- Three accounting standards are relevant:
  - **IAS 32**: *Financial instruments: Presentation*
  - **IFRS 7**: *Financial instruments: Disclosures*
  - **IAS 39**: *Financial instruments: Recognition and measurement*
- The definitions of **financial asset, financial liability** and **equity instrument** are fundamental to the standards.
- Financial instruments include:
  - **Primary** instruments
  - **Derivative** instruments

Section summary

Financial instruments can be very complex, particularly **derivative instruments**, although **primary instruments** are more straightforward.

The important definitions to learn are:

- **Financial asset**
- **Financial liability**
- **Equity instrument**

2 Presentation of financial instruments

Introduction

The presentation of financial instruments is covered by IAS 32.

2.1 Objective

The objective of IAS 32 is to 'establish principles for presenting financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities.'

2.2 Scope

IAS 32 should be applied in the presentation of **all types of financial instruments**, whether recognised or unrecognised.

Certain items are **excluded**.

- Interests in subsidiaries (IFRS 10: Chapter 6)
- Interests in associates and joint ventures (IAS 28: Chapter 9)
- Interests in joint arrangements (IFRS 11: Chapter 9)
- Pensions and other post-retirement benefits (IAS 19: Chapter 3)
- Insurance contracts
- Contracts for contingent consideration in a business combination
- Contracts that require a payment based on climatic, geological or other physical variables
- Financial instruments, contracts and obligations under share-based payment transactions (IFRS 2: Chapter 4)

2.3 Liabilities and equity 5/11

The main thrust of IAS 32 here is that financial instruments should be presented according to their **substance**, **not merely their legal form**. In particular, entities which issue financial instruments should classify them (or their component parts) as **either financial liabilities, or equity**.

The classification of a financial instrument as a liability or as equity depends on the following.

- The substance of the contractual arrangement on initial recognition
- The definitions of a financial liability and an equity instrument

How should a **financial liability be distinguished from an equity instrument**? The critical feature of a **liability** is an **obligation** to transfer economic benefit. Therefore a financial instrument is a financial liability if there is a **contractual obligation** on the issuer either to deliver cash or another financial asset to

the holder or to exchange another financial instrument with the holder under potentially unfavourable conditions to the issuer.

The financial liability exists **regardless of the way in which the contractual obligation will be settled**. The issuer's ability to satisfy an obligation may be restricted, eg by lack of access to foreign currency, but this is irrelevant as it does not remove the issuer's obligation or the holder's right under the instrument.

Where the above critical feature is *not* met, then the financial instrument is an **equity instrument**. IAS 32 explains that although the holder of an equity instrument may be entitled to a *pro rata* share of any distributions out of equity, the issuer does *not* have a contractual obligation to make such a distribution.

Although substance and legal form are often **consistent with each other**, this is not always the case. In particular, a financial instrument may have the legal form of equity, but in substance it is in fact a liability. Other instruments may combine features of both equity instruments and financial liabilities.

For example, many entities issue **preference shares** which must be **redeemed** by the issuer for a fixed (or determinable) amount at a fixed (or determinable) future date. In such cases, the issuer has an **obligation**. Therefore the instrument is a **financial liability** and should be classified as such.

Another example is **cumulative irredeemable preference shares**. While the issuer does not redeem the preference shares, there is an obligation on the issuer to pay fixed dividends. If the entity has insufficient retained earnings in a given year, the dividends still must be paid in future years. Again, because the issuer has an obligation, the instrument should be classified as a financial liability.

The classification of the financial instrument is made when it is **first recognised** and this classification will continue until the financial instrument is removed from the entity's statement of financial position.

2.4 Contingent settlement provisions

An entity may issue a financial instrument where the way in which it is settled depends on:

(a) The occurrence or non-occurrence of uncertain future events, or
(b) The outcome of uncertain circumstances,

that are beyond the control of both the holder and the issuer of the instrument. For example, an entity might have to deliver cash instead of issuing equity shares. In this situation, it is not immediately clear whether the entity has an equity instrument or a financial liability.

Such financial instruments should be classified as **financial liabilities** unless the possibility of settlement is remote.

2.5 Settlement options

When a derivative financial instrument gives one party a **choice** over how it is settled (eg, the issuer can choose whether to settle in cash or by issuing shares) the instrument is a **financial asset** or a **financial liability** unless **all the alternative choices** would result in it being an equity instrument.

2.6 Compound financial instruments 5/11

Some financial instruments contain both a liability and an equity element. In such cases, IAS 32 requires the component parts of the instrument to be **classified separately**, according to the substance of the contractual arrangement and the definitions of a financial liability and an equity instrument.

One of the most common types of compound instrument is **convertible debt**. This creates a primary financial liability of the issuer and grants an option to the holder of the instrument to convert it into an equity instrument (usually ordinary shares) of the issuer. This is the economic equivalent of the issue of conventional debt plus a warrant to acquire shares in the future.

Although in theory there are several possible ways of calculating the split, the following method is recommended:

(a) Calculate the value for the liability component.
(b) Deduct this from the instrument as a whole to leave a residual value for the equity component.

The reasoning behind this approach is that an entity's equity is its residual interest in its assets amount after deducting all its liabilities.

The **sum of the carrying amounts** assigned to liability and equity will always be equal to the carrying amount that would be ascribed to the instrument **as a whole**.

Example: valuation of compound instruments

Rathbone Co issues 2,000 convertible bonds at the start of 20X2. The bonds have a three year term, and are issued at par with a face value of $1,000 per bond, giving total proceeds of $2,000,000. Interest is payable annually in arrears at a nominal annual interest rate of 6%. Each bond is convertible at any time up to maturity into 250 common shares.

When the bonds are issued, the prevailing market interest rate for similar debt without conversion options is 9%. At the issue date, the market price of one common share is $3. The dividends expected over the three year term of the bonds amount to 14c per share at the end of each year. The risk-free annual interest rate for a three year term is 5%.

Required

What is the value of the equity component in the bond?

Solution

The liability component is valued first, and the difference between the proceeds of the bond issue and the fair value of the liability is assigned to the equity component. The present value of the liability component is calculated using a discount rate of 9%, the market interest rate for similar bonds having no conversion rights, as shown.

	$
Present value of the principal: $2,000,000 payable at the end of three years ($2m × 0.772)*	1,544,000
Present value of the interest: $120,000 payable annually in arrears for three years ($120,000 × 2.531)*	303,725
Total liability component	1,847,720
Equity component (balancing figure)	152,280
Proceeds of the bond issue	2,000,000

* These figures can be obtained from discount and annuity tables.

The split between the liability and equity components remains the same throughout the term of the instrument, even if there are changes in the **likelihood of the option being exercised.** This is because it is not always possible to predict how a holder will behave. The issuer continues to have an obligation to make future payments until conversion, maturity of the instrument or some other relevant transaction takes place.

2.7 Treasury shares

If an entity **reacquires its own equity instruments**, those instruments ('treasury shares') shall be **deducted from equity**. No gain or loss shall be recognised in profit or loss on the purchase, sale, issue or cancellation of an entity's own equity instruments. Consideration paid or received shall be recognised directly in equity.

2.8 Interest, dividends, losses and gains

As well as looking at statement of financial position presentation, IAS 32 considers how financial instruments affect the profit or loss (and movements in equity). The treatment varies according to whether interest, dividends, losses or gains relate to a financial liability or an equity instrument.

(a) Interest, dividends, losses and gains relating to a financial instrument (or component part) classified as a **financial liability** should be recognised as **income or expense** in profit or loss.

(b) Distributions to holders of a financial instrument classified as an **equity instrument** should be **debited directly to equity** by the issuer.

(c) **Transaction costs** of an equity transaction shall be accounted for as a **deduction from equity** (unless they are directly attributable to the acquisition of a business, in which case they are accounted for under IFRS 3).

You should look at the requirements of IAS 1 *Presentation of financial statements* for further details of disclosure, and IAS 12 *Income taxes* for disclosure of tax effects.

2.9 Key points

- Financial instruments issued to raise capital must be classified as **liabilities** or **equity**
- The **substance** of the financial instrument is more important than its **legal form**
- The **critical feature of a financial liability** is the contractual obligation to deliver cash or another financial instrument
- **Compound instruments** are split into equity and liability parts and presented accordingly
- **Interest, dividends, losses and gains** are treated according to whether they relate to an equity instrument or a financial liability

Section summary

Financial instruments must be classified as **liabilities** or **equity** according to their **substance.**

The critical feature of a financial liability is the **contractual obligation to deliver cash** or another financial asset.

Compound instruments are split into **equity** and **liability** components and presented accordingly in the statement of financial position.

3 Recognition of financial instruments 9/12, 11/12

Introduction

IAS 39 *Financial instruments: Recognition and measurement* establishes principles for recognising and measuring financial assets and financial liabilities.

3.1 Scope

IAS 39 applies to **all entities** and to **all types of financial instruments except** those specifically excluded, as listed below.

(a) Investments in **subsidiaries, associates, and joint arrangements** that are accounted for under IFRS 10, IAS 27 or IAS 28.

(b) Employers' rights and obligations **under employee benefit plans** covered in IAS 19

(c) **Forward contracts** for a sale that will result in a **business combination** at a later date

(d) Rights and obligations under **insurance contracts** (although IAS 39 applies where the insurance contract principally involves the transfer of financial risks and derivatives embedded in insurance contracts)

(e) Equity instruments **issued by the entity** eg ordinary shares issued, or options and warrants

(f) Financial instruments, contracts and obligations under **share based payment transactions,** covered in IFRS 2

(g) Rights to **reimbursement payments** to which IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* applies

3.2 Initial recognition

Financial instruments should be recognised in the statement of financial position when the entity becomes a party to the **contractual provisions of the instrument**.


KEY POINT

An important consequence of this is that all derivatives should be in the statement of financial position.

Notice that this is **different** from the recognition criteria in the *Framework*, which states items are normally recognised when there is a probable inflow or outflow of resources and the item has a cost or value that can be measured reliably.

3.3 Example: initial recognition

An entity has entered into two separate contracts.

(a) A firm commitment (an order) to buy a specific quantity of iron.

(b) A forward contract to buy a specific quantity of iron at a specified price on a specified date, provided delivery of the iron is not taken.

Contract (a) is a **normal trading contract**. The entity does not recognise a liability for the iron until the goods have actually been delivered. (Note that this contract is not a financial instrument because it involves a physical asset, rather than a financial asset.)

Contract (b) is a **financial instrument**. Under IAS 39, the entity recognises a financial liability (an obligation to deliver cash) on the **commitment date**, rather than waiting for the closing date on which the exchange takes place.

Note that planned future transactions, no matter how likely, are not assets and liabilities of an entity – the entity has not yet become a party to the contract.

3.4 Derecognition

Derecognition is the removal of a previously recognised financial instrument from an entity's statement of financial position.

An entity should derecognise a **financial asset** when:

(a) The **contractual rights** to the cash flows from the financial asset **expire**, or

(b) The entity **transfers substantially all the risks and rewards of ownership** of the financial asset to another party.

Question 2.2

Risks and rewards

Learning outcomes B1

Can you think of an example of a situation in which:

(a) An entity has transferred substantially all the risks and rewards of ownership?
(b) An entity has retained substantially all the risks and rewards of ownership?

Exam alert

The principle here is that of **substance over form**.

When a financial asset is derecognised, there are three steps to follow.

Revalue at fair value.

Recognise proceeds.

Derecognise financial asset.

Example: Derecognition

In July 20X8 AB sold 12,000 shares for $16,800 (their market value at that date). It had purchased the shares through a broker in 20X7 for $1.25 per share. The quoted price at the 20X7 year end was $1.32 - $1.34 per share. The broker charges transaction costs of 1% purchase/sale price.

What were the journal entries to record the derecognition?

Solution

The shares were originally recorded at their cost of $15,150 in 20X7 and revalued to market value at the 20X7 year end with a gain of $690 reported in other comprehensive income:

	$	
20X7 Purchase ((12,000 × $1.25) + (1% × $15,000))	15,150	→ other comprehensive income 20X5
Fair value gain at 31.12.20X7 β	690	
Fair value at 31.12.20X7 (12,000 × $1.32 bid price)	15,840	

At the date of the derecognition in July 20X8, the shares must first be remeasured to their fair value (i.e. the sales price as they were sold at market price) and the gain is reported in other comprehensive income ('items that will not be reclassified to profit or loss'):

DEBIT Financial asset (16,800 – 15,840)	$960	
CREDIT Other comprehensive income		$960

On derecognition, the transaction costs are charged to profit or loss:

DEBIT Cash (16,800 – (1% × 16,800))	$16,632	
DEBIT Profit or loss (1% × 16,800)	$168	
CREDIT Financial asset		$16,800

A **financial liability** should be removed from the statement of financial position when, and only when, it is **extinguished** – that is, when the obligation specified in the contract is either **discharged** or **cancelled** or **expires**.

Exam alert

No gain or loss will arise on the derecognition of an investment unless it is sold at a price different to fair value.

Section summary

IAS 39 *Financial instruments: recognition and measurement* is a recent and most controversial standard.

The IAS states that all financial assets and liabilities should be recognised in the statement of financial position, including derivatives.

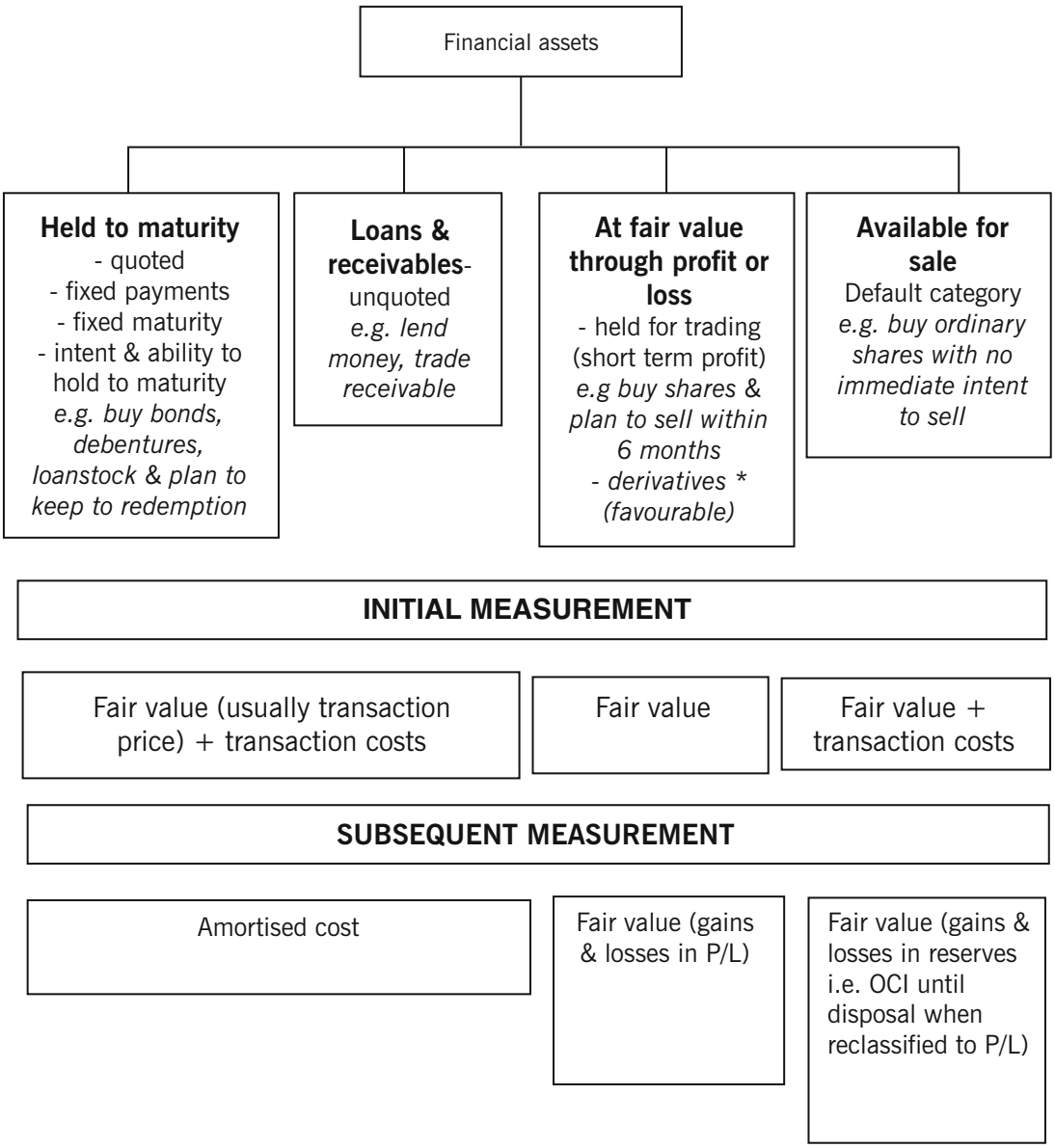
4 Measurement of financial instruments 11/10, 3/11, 9/12

Introduction

Financial assets are initially measured at the **fair value** of the consideration given or received (ie, **cost**) **plus** (in most cases) **transaction costs** that are **directly attributable** to the acquisition or issue of the financial instrument.

4.1 Introduction

The diagram below summarises how different types of financial assets are measured. We will look at the initial and subsequent measurement of each type of financial asset one by one.



4.1.1 Initial measurement

Financial assets are measured at fair value plus transaction costs, except when they are designated as **at fair value through profit or loss**.

Where a financial instrument is designated as **at fair value through profit or loss** (this term is explained below). In this case, **transaction costs** are **not** added to fair value at initial recognition.

The **fair value** of the consideration is normally the **transaction price** or market prices. If market prices are not reliable, the fair value may be **estimated** using a valuation technique (for example, by discounting cash flows).

4.1.2 Subsequent measurement

As you can see in the diagram above, IAS 39 classifies financial assets into four categories. These are defined here. Note particularly the criteria for a financial asset or liability **at fair value through profit and loss**.


KEY TERMS

A **FINANCIAL ASSET OR LIABILITY AT FAIR VALUE THROUGH PROFIT OR LOSS** meets either of the following conditions:

(a) It is classified as **held for trading**. A financial instrument is classified as held for trading if it is:

  (i) Acquired or incurred principally for the purpose of selling or repurchasing it in the short term

  (ii) Part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent actual pattern of short-term profit-taking, or

  (iii) A derivative (unless it is a designated and effective hedging instrument).

(b) Upon initial recognition it is **designated** by the entity on initial recognition as one to be measured at fair value, with fair value changes being recognised in profit or loss. An entity may only use this designation in severely restricted circumstances:

  (i) It **eliminates** or **significantly reduces an accounting mismatch** that would otherwise arise.

  (ii) A **group** of financial assets/liabilities is managed and its performance is evaluated **on a fair value basis**.

LOANS AND RECEIVABLES are non-derivative financial assets with **fixed or determinable payments** that **are not quoted in an active market**, other than:

(a) Those that the entity intends to sell immediately or in the near term, which should be classified as held for trading

(b) Those that the entity upon initial recognition designates as at fair value through profit or loss, or

(c) Those that the entity upon initial recognition designates as available-for-sale.

Those for which the holder may not recover substantially all of the initial investment, other than because of credit deterioration, shall be classified as **available for sale**.

HELD-TO-MATURITY INVESTMENTS are non-derivative financial assets with fixed or determinable payments and fixed maturity that an entity has the **positive intent and ability to hold to maturity**, and that:

(a) are not designated as at fair value through profit or loss
(b) do not meet the definition of loans and receivables.

AVAILABLE-FOR-SALE FINANCIAL ASSETS are those financial assets that classified on initial recognition as available for sale, or those which are not classified as:

(a) Loans and receivables originated by the entity,
(b) Held-to-maturity investments, or
(c) Financial assets at fair value through profit or loss. *(IAS 39)*

After initial recognition, all financial assets should be **remeasured to fair value**, without any deduction for transaction costs that may be incurred on sale or other disposal, except for:

(a) Loans and receivables – measured at amortised cost

(b) Held to maturity investments – measured at amortised cost

(c) Investments in equity instruments that do not have a quoted market price in an active market and whose **fair value cannot be reliably measured** (and derivatives indexed to such equity instruments) – measured at **cost**

Loans and receivables and **held to maturity investments** should be measured at **amortised cost** using the **effective interest method**.


KEY TERMS

AMORTISED COST of a financial asset or financial liability is the amount at which the financial asset or liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortisation of any difference between that initial amount and the maturity amount, and minus any write-down (directly or through the use of an allowance account) for impairment or uncollectability.

The **EFFECTIVE INTEREST METHOD** is a method of calculating the amortised cost of a financial instrument and of allocating the interest income or interest expense over the relevant period.

The **EFFECTIVE INTEREST RATE** is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to the net carrying amount of the financial asset or liability. (*IAS 39*)

Example: amortised cost

On 1 January 20X1 Abacus Co purchases a debt instrument for its fair value of $1,000. The debt instrument is due to mature on 31 December 20X5. The instrument has a principal amount of $1,250 and the instrument carries fixed interest at 4.72% that is paid annually. (The effective interest rate is 10%.)

How should Abacus Co account for the debt instrument over its five year term?

Solution

Abacus Co will receive interest of $59 (1,250 × 4.72%) each year and $1,250 when the instrument matures.

Abacus must allocate the discount of $250 and the interest receivable over the five year term at a constant rate on the carrying amount of the debt. To do this, it must apply the effective interest rate of 10%.

The following table shows the allocation over the years:

Year	*Amortised cost at beginning of year* $	*Profit or loss: Interest income for year (@10%)* $	*Interest received during year (cash inflow)* $	*Amortised cost at end of year* $
20X1	1,000	100	(59)	1,041
20X2	1,041	104	(59)	1,086
20X3	1,086	109	(59)	1,136
20X4	1,136	113	(59)	1,190
20X5	1,190	119	(1,250+59)	–

Each year the carrying amount of the financial asset is increased by the interest income for the year and reduced by the interest actually received during the year.

Investments whose **fair value cannot be reliably measured** should be measured at **cost**.

The proforma and double entries for recording amortised cost are as follows:

Financial asset

	$	Post to:	
Balance b/d	X		DEBIT (↑) Financial asset CREDIT (↓) Cash (if initial recognition at start of year)
Finance income (effective interest x b/f)	X	P/L	DEBIT (↑) Financial asset CREDIT (↑) Finance income
Interest received (coupon x par value)	(X)		DEBIT (↑) Cash CREDIT (↓) Financial asset
Balance c/d	X	SOFP	

Financial liability

	$	Post to:	
Balance b/d	X		DEBIT (↑) Cash CREDIT (↑) Financial liability (if initial recognition at start of year)
Finance cost (effective interest x b/f)	X	P/L	DEBIT (↑) Finance cost CREDIT (↑) Financial liability
Interest paid (coupon x par value)	(X)		DEBIT (↓) Financial liability CREDIT (↓) Cash
Balance c/d	X	SOFP	

4.1.3 Classification

There is a certain amount of flexibility in that **any** financial instrument can be designated as fair value through profit or loss. However, this is a **once and for all choice** and has to be made on initial recognition. Once a financial instrument has been classified in this way, it **cannot be reclassified**, even if it would otherwise be possible to measure it at cost or amortised cost.

In contrast, it is quite difficult for an entity **not** to remeasure financial instruments to fair value.

Exam alert

Notice that derivatives **must** be remeasured to fair value. This is because it would be misleading to measure them at cost.

For a financial instrument to be held to maturity it must meet several extremely narrow criteria. The entity must have a **positive intent** and a **demonstrated ability** to hold the investment to maturity. These conditions are not met if:

(a) The entity intends to hold the financial asset for an undefined period

(b) The entity stands ready to sell the financial asset in response to changes in interest rates or risks, liquidity needs and similar factors (unless these situations could not possibly have been reasonably anticipated)

(c) The issuer has the right to settle the financial asset at an amount significantly below its amortised cost (because this right will almost certainly be exercised)

(d) It does not have the financial resources available to continue to finance the investment until maturity

(e) It is subject to an existing legal or other constraint that could frustrate its intention to hold the financial asset to maturity

In addition, an **equity** instrument is **unlikely** to meet the criteria for classification as held to maturity.

There is a **penalty** for selling or reclassifying a 'held-to-maturity' investment other than in certain very tightly defined circumstances. If this has occurred during the **current** financial year or during the **two preceding** financial years, **no** financial asset can be classified as held-to-maturity.

If an entity can no longer hold an investment to maturity, it is no longer appropriate to use amortised cost and the asset must be re-measured to fair value**. All** remaining held-to-maturity investments must also be re-measured to fair value and classified as available-for-sale (see above).

4.1.4 Gains and losses

Instruments at **fair value through profit or loss**: gains and losses are recognised **in profit or loss**.

For **available for sale** financial assets: gains and losses are recognised in **reserves (ie other comprehensive income)**. When the asset is disposed of and derecognised, the cumulative gain or loss previously recognised in other comprehensive income should be **reclassified to profit or loss**.

Financial instruments carried at **amortised cost**: gains and losses are recognised **in profit or loss** as a result of the amortisation process and when the asset is derecognised.

Financial assets and financial liabilities that are **hedged items**: special rules apply (discussed later in this chapter).

Question 2.3 Finance cost 1

Learning outcomes B1

On 1 January 20X3 Deferred issued $600,000 loan notes. Issue costs were $200. The loan notes do not carry interest, but are redeemable at a premium of $152,389 on 31 December 20X4. The effective finance cost of the debentures is 12%.

What is the finance cost in respect of the loan notes for the year ended 31 December 20X4?

A $72,000
B $76,194
C $80,613
D $80,640

Question 2.4 Exam standard example

Learning outcomes B1

Palermo, a public limited company, has requested your advice for the following financial instrument transactions:

(a) Palermo purchased a deep discount bond during the previous accounting period on 1.1.20X0 for $157,563 plus $200 transaction costs. Interest of 4% is payable annually on 31 December. The bond will be redeemed on 31.12.20X4 for $200,000 (its par value). The bond will be held until redemption. The effective interest rate of the bond is 9.5%

(b) Palermo issued 60,000 redeemable $1 preference shares on 1.1.20X1 paying an annual (cumulative) dividend of 7% per annum, redeemable in ten years' time.

(c) Palermo purchased 12,000 shares in ABC Co through a broker on 1 July 20X0 for $1.25 a share. The market price at 31 December 20X0 was $1.32 a share. On 30 September 20X1, Palermo sold the shares in ABC for $16,800. The broker charges transaction costs of 1% purchase/sale price.

(d) On 1 November 20X1, Palermo took out a speculative forward contract to buy coffee beans for delivery on 30 April 20X2 at an agreed price of $6,000 intending to settle net in cash. Due to a surge in expected supply, a forward contract for delivery on 30 April 20X2 would have cost $5,000 at 31 December 20X1.

Required

Explain how the above transactions should be accounted for in the year ending 31 December 20X1, showing relevant calculations where appropriate.

4.2 Impairment and uncollectability of financial assets

At each year end, an entity should assess whether there is any objective evidence that a financial asset or group of assets is impaired.

Question 2.5 Impairment

Learning outcomes B1

Give examples of indications that a financial asset or group of assets may be impaired.

Where there is objective evidence of impairment, the entity should **determine the amount** of any impairment loss. Examples of indications of impairment include:

- Financial difficulty of issuer
- Breach of contract in repayments
- Granting a concession to a borrower not normally given
- High probability of bankruptcy of borrower

4.2.1 Financial assets carried at amortised cost

For **loans and receivables** and **held-to-maturity investments**, the impairment loss is the **difference** between the asset's **carrying amount** and its **recoverable amount**.

The asset's recoverable amount is the present value of estimated future cash flows, discounted at the financial instrument's **original** effective interest rate.

The amount of the loss should be **recognised in profit or loss.** The carrying amount of the asset is either reduced directly or through the use of an allowance account.

If the impairment loss decreases at a later date (and the decrease relates to an event occurring **after** the impairment was recognised) the reversal is recognised in profit or loss. The carrying amount of the asset must not exceed the original amortised cost.

4.2.2 Financial assets carried at cost

Unquoted equity instruments are carried at cost if their fair value cannot be reliably measured. The impairment loss is the difference between the asset's **carrying amount** and the **present value of estimated future cash flows**, discounted at the current market rate of return for a similar financial instrument.

Such impairment losses cannot be reversed.

4.2.3 Available for sale financial assets

Available for sale financial assets are carried at fair value and gains and losses are recognised directly in equity.

Where an available-for-sale financial asset suffers an impairment loss, the loss is charged first against any cumulative **gains** on fair value adjustments previously recognised in equity (and is shown as an expense in other comprehensive income), and then to profit or loss.

If there are cumulative **losses** held in equity, they are reclassified ('recycled') from equity to profit or loss in addition to the impairment loss.

The impairment loss is the difference between its **acquisition cost** (net of any principal repayment and amortisation) and **current fair value** (for equity instruments) or recoverable amount (for debt instruments), less any impairment loss on that asset previously recognised in profit or loss.

Impairment losses relating to equity instruments cannot be reversed. Impairment losses relating to debt instruments may be reversed if, in a later period, the fair value of the instrument increases and the increase can be objectively related to an event occurring after the loss was recognised.

Example: impairment

Broadfield Co purchased 5% debentures in X Co on 1 January 20X3 (their issue date) for $100,000. The term of the debentures was 5 years and the maturity value is $130,525. The effective rate of interest on the debentures is 10% and the company has classified them as a held-to-maturity financial asset.

At the end of 20X4 X Co went into liquidation. All interest had been paid until that date. On 31 December 20X4 the liquidator of X Co announced that no further interest would be paid and only 80% of the maturity value would be repaid, on the original repayment date.

The market interest rate on similar bonds is 8% on that date.

Required

(a) What value should the debentures have been stated at just before the impairment became apparent?

(b) At what value should the debentures be stated at 31 December 20X4, after the impairment?

(c) How will the impairment be reported in the financial statements for the year ended 31 December 20X4?

Solution

(a) The debentures are classified as a held-to-maturity financial asset and so they would have been stated at amortised cost:

	$
Initial cost	100,000
Interest at 10%	10,000
Cash at 5%	(5,000)
At 31 December 20X3	105,000
Interest at 10%	10,500
Cash at 5%	(5,000)
At 31 December 20X4	110,500

(b) After the impairment, the debentures are stated at their recoverable amount (using the **original** effective interest rate of 10%):

$80\% \times \$130{,}525 \times 0.751 = \$78{,}419$

(c) The impairment of $32,081 ($110,500 – $78,419) should be recorded:

DEBIT	Profit or loss	$32,081	
CREDIT	Financial asset		$32,081

Being impairment of held-to-maturity financial asset

4.3 Subsequent measurement of financial liabilities

After initial recognition, all financial liabilities should be measured at **amortised cost**, with the exception of financial liabilities at fair value through profit or loss (including most derivatives). These should be measured at **fair value**, but where the fair value **is not capable of reliable measurement**, they should be measured at **cost**.

4.4 Recap

- On initial recognition, financial instruments are measured at **cost**.
- Subsequent measurement depends on how a financial asset is **classified**.
- Financial assets at **fair value through profit or loss** are measured at **fair value**; gains and losses are recognised in **profit or loss**.
- **Available for sale** assets are measured at **fair value**; gains and losses are taken to **equity**, through other comprehensive income.
- **Loans and receivables** and **held to maturity** investments are measured at **amortised cost**; gains and losses are recognised in **profit or loss**.
- Financial **liabilities** are normally measured at **amortised cost**, unless they have been classified as at fair value through profit or loss.

Section summary

Financial assets should initially be measured at cost = fair value.

Subsequently they should be re-measured to fair value except for

(a) Loans and receivables not held for trading
(b) Other held-to-maturity investments
(c) Financial assets whose value cannot be reliably measured

5 Hedging 11/10

Introduction

IAS 39 **requires hedge accounting** where there is a **designated hedging relationship** between a hedging instrument and a hedged item.

5.1 Definitions

Companies enter into hedging transactions in order to reduce business risk. Where an item in the statement of financial position or future cash flow is subject to potential fluctuations in value that could be detrimental to the business, a hedging transaction may be entered into. The aim is that where the item hedged makes a financial loss, the hedging instrument would make a gain and *vice versa*, reducing overall risk.

KEY TERMS

HEDGING, for accounting purposes, means designating one or more hedging instruments so that their change in fair value is an offset, in whole or in part, to the change in fair value or cash flows of a hedged item.

A HEDGED ITEM is an asset, liability, firm commitment, or forecasted future transaction that:

(a) exposes the entity to risk of changes in fair value or changes in future cash flows, and that
(b) is designated as being hedged.

A HEDGING INSTRUMENT is a designated derivative or (in limited circumstances) another financial asset or liability whose fair value or cash flows are expected to offset changes in the fair value or cash flows of a designated hedged item.

(A non-derivative financial asset or liability may be designated as a hedging instrument for hedge accounting purposes only if it hedges the risk of changes in foreign currency exchange rates.)

HEDGE EFFECTIVENESS is the degree to which changes in the fair value or cash flows of the hedged item attributable to a hedged risk are offset by changes in the fair value or cash flows of the hedging instrument. (*IAS 39*)

In simple terms, entities hedge to reduce their exposure to risk and uncertainty, such as changes in prices, interest rates or foreign exchange rates. Hedge accounting recognises hedging relationships by allowing (for example) losses on a hedged item to be offset against gains on a hedging instrument.

Generally only assets, liabilities etc that involve external parties can be designated as hedged items. The foreign currency risk of an intragroup monetary item (eg payable/receivable between two subsidiaries) may qualify as a hedged item in the group financial statements if it results in an exposure to foreign exchange rate gains or losses that are not fully eliminated on consolidation. This can happen (per IAS 21) when the transaction is between entities with different functional currencies.

In addition, the foreign currency risk of a highly probable group transaction may qualify as a hedged item if it is in a currency other than the functional currency of the entity and the foreign currency risk will affect profit or loss.

The **standard** identifies three types of **hedging relationship**.

KEY TERMS

FAIR VALUE HEDGE: These hedge against the change in value of an asset or liability that could affect the profit or loss (eg hedging the fair value of fixed rate debentures due to changes in interest rates)

CASH FLOW HEDGE: These hedge against the risk of a change in value of future cash flows that could affect profit or loss (eg hedging a variable rate interest income stream)

(a) is attributable to a particular risk associated with a recognised asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction (such as an anticipated purchase or sale), and that

(b) could affect profit or loss.

HEDGE OF A NET INVESTMENT IN A FOREIGN OPERATION: These hedge against changes in the value of an entity's investment in a foreign operation.

IAS 21 defines a net investment in a foreign operation as the amount of the reporting entity's interest in the net assets of that operation. (*IAS 39*)

5.2 Conditions for hedge accounting

Adopting the hedge accounting provisions of IAS 39 is mandatory where a transaction qualifies as a hedge. To qualify the relationship needs to show it satisfies the following conditions.

(a) It was **designated at its inception** as a hedge with full documentation of how this hedge fits into the company's strategy

(b) The hedge has been and is expected to be '**highly effective**' (ie the ratio of the gain or loss on the hedging instrument compared to the loss or gain on item being hedged is within the ratio 80% to 125%)

(c) The hedge effectiveness can be **reliably measured**.

5.3 Accounting treatment

5.3.1 Fair value hedges

All gains and losses on **both** the **hedged item** and **hedging instrument** are recognised immediately in **profit or loss**.

5.3.2 Cash flow hedges

The gain or loss on the effective portion of the hedge (ie up to the value of the loss or gain on cash flow hedged) is recognised in other comprehensive income ('items that may be reclassified subsequently to profit or loss'). This is transferred to profit or loss when the cash flow itself is recognised in profit or loss.

Any excess is recognised immediately in profit or loss.

5.3.3 Hedges of net investments in a foreign operation

The hedge is accounted for in the same way as for a cash flow hedge (but gains or losses on the hedge are not transferred to profit or loss, until the disposal of the foreign operation).

Example: hedging

On 1 September 20X7, the directors of JKL entered into a contract to buy some inventories for 400,000 florins for delivery and payment on 30 June 20X9. JKL's functional currency is the dollar.

The directors were concerned about how the fluctuation in the exchange rate could affect the amount that they would have to pay and so on the same date entered into a forward contract to buy 400,000 florins on 30 June 20X9 at a rate of $1 = 4 florins.

Relevant forward exchange rates for delivery on 30 June 20X9 are:

At 1 September 20X7 $1 = 4 florins

At 31 December 20X7 $1 = 3.8 florins

At 31 December 20X8 $1 = 3.7 florins

Required

(a) Show how the forward contract should be accounted for in the company's statement of profit or loss and other comprehensive income and statement of financial position for the year ending 31 December 20X8, including comparatives:

(i) if it does not meet the criteria to be classified as a hedge

(ii) if it is to be classified as a hedge.

In part (ii) you should assume that the hedge is fully effective.

(b) Explain what happens to inventories purchase and the hedge in 20X9.

Tutorial note:

A foreign currency forward contract is valued as follows:

	$
Price of contract in $ at year end	X
Price of contract in $ at inception	(X)
Value of/gain on contract	X

Solution

(a)

	(a)(i) *Not a hedge*		(a)(ii) *Cash flow hedge*	
	20X8 $	20X7 $	20X8 $	20X7 $
STATEMENT OF PROFIT OR LOSS AND COMPREHENSIVE INCOME (EXTRACT)				
Finance income:				
Gain on forward contract (W1)	2,845	5,263	–	–
Other comprehensive income (items that may be reclassified subsequently to profit or loss)				
Gain on forward contract	–	–	2,845	5,263
STATEMENT OF FINANCIAL POSITION (EXTRACTS)				
Financial assets:				
Forward contract (W1)	8,108	5,263	8,108	5,263
Equity:				
Cash flow hedge reserve (W1)	–	–	8,108	5,263

In part (a)(i) the forward contract is held at fair value through profit or loss, as all derivatives that are not held for hedging fall into this category.

In part (a)(ii) the hedge is a cash flow hedge, because it is trying to minimise fluctuations in cash outflows to acquire the inventories.

Workings

1 *Gain on forward contract at 31 December 20X7:*

Price of contract at 31.12.20X7 (400,000/3.8)	$105,263	
Price of contract at 1.9.20X7 (400,000/4)	$100,000	
Gain on contract	$5,263	
DEBIT Forward contract	5,263	
CREDIT Profit or loss (a)		5,263
or CREDIT Cash flow hedge reserve (b)		5,263

2 *Additional gain on forward contract at 31 December 20X8:*

Price of contract at 31.12.20X8 (400,000/3.7)	$108,108	
Price of contract at 31.12.20X7 (400,000/3.8)	$105,263	
Gain on contract	$2,845	
DEBIT Forward contract	2,845	
CREDIT Profit or loss (a)		2,845
or CREDIT Cash flow hedge reserve (b)		2,845

(b) When the inventories are purchased they will be recorded at the exchange rate ruling on 30 June 20X9, and, being a non-monetary item, will not subsequently be restated.

The cumulative gain $8,108 plus/net of any gain/loss on the forward contract in 20X9, will be transferred to cost of sales when the inventories are sold, thereby compensating the extra cost of the inventories recognised in cost of sales due to the exchange rate movement between 1 September 20X7 and their date of delivery 30 June 20X9.

5.4 Recap

- **Hedge accounting** means designating one or more instruments so that their change in fair value is **offset** by the change in fair value or cash flows of another item.
- **Hedge accounting** is permitted in certain circumstances, provided the hedging relationship is **designated at inception**, **measurable** and actually **effective**.
- There are three types of hedge: **fair value** hedge; **cash flow** hedge; hedge of a **net investment in a foreign operation**.
- The accounting treatment of a hedge **depends on its type**.

Section summary

Hedging is allowed in certain strictly defined circumstances.

6 Disclosure of financial instruments

Introduction

The IASB maintains that users of financial instruments need information about an entity's exposures to risks and how those risks are managed, as this information can **influence a user's assessment of the financial position and financial performance of an entity** or of the amount, timing and uncertainty of its **future cash flows**.

There have been new techniques and approaches to measuring risk management, which highlighted the need for guidance.

Accordingly, IFRS 7 *Financial instruments: Disclosures* was issued in 2005.

6.1 Objective

The objective of IFRS 7 is to require entities to provide disclosures in their financial statements that enable users to evaluate:

(a) The **significance** of financial instruments for the entity's financial position and performance

(b) The **nature and extent of risks** arising from financial instruments, and how the entity manages those risks.

The principles in IFRS 7 complement the principles for recognising, measuring and presenting financial assets and financial liabilities in IAS 32 *Financial instruments: Presentation* and IAS 39 *Financial instruments: Recognition and measurement*.

6.2 Classes of financial instruments and levels of disclosure

The entity must group financial instruments into classes **appropriate to the nature of the information presented**. An entity must decide, based on its circumstances, how much detail it provides. Sufficient information must be provided to permit reconciliation to the line items presented in the statement of financial position.

6.2.1 Statement of financial position

The following must be disclosed.

(a) **Carrying amount** of financial assets and liabilities (by IAS 39 category).

(b) Special disclosures about financial assets and financial liabilities designated to be measured **at fair value through profit and loss**, including disclosures about credit risk and market risk, changes in fair values attributable to these risks and the methods of measurement.

(c) **Reason for any reclassification** of financial instruments from one category to another.

(d) The **carrying amount** of financial assets the entity has **pledged as collateral** for liabilities or contingent liabilities and the associated terms and conditions.

(e) Reconciliation of movement in the allowance account for credit losses (bad debts) by class of financial assets.

(f) The **existence of multiple embedded derivatives**, where compound instruments contain these.

(g) Defaults on loans payable.

6.2.2 Statement of profit or loss and other comprehensive income

The entity must disclose the following items of **income, expense, gains or losses**, either on the face of the financial statements or in the notes.

(a) **Net gains/losses** on financial instruments recognised in profit or loss by IAS 39 category (broken down as appropriate: eg interest, fair value changes, dividend income).

(b) Total effective **interest income/expense** (for items **not** held at fair value through profit or loss).

(c) Impairments losses by class of financial asset.

6.2.3 Other disclosures

Other disclosures must be made relating to **hedge accounting**, as follows:

(a) Accounting policy for the measurement basis of financial instruments.

(b) Description of each hedge.

(c) Description of each financial instrument designated as **hedging instruments** and their fair value at the reporting date.

(d) The **nature of the risks** being hedged.

(e) For **cash flow hedges**, periods **when the cash flows will occur** and when will affect profit or loss.

(f) For fair value hedges, details of fair value changes of the hedging instrument and the hedged item.

(g) The **ineffectiveness recognised in profit or loss** arising from cash flow hedges and net investments in foreign operations.

Disclosures must be made relating to **fair value** by class of financial instrument, in a way that allows comparison to statement of financial position value in the statement of financial position. (Financial assets and liabilities may only be offset to the extent that their carrying amounts are offset in the statement of financial position.)

Example: fair value disclosures

Background

On 1 January 20X1 an entity purchases for $15 million financial assets that are not traded in an active market. The entity has only one class of such financial assets.

The transaction price of $15 million is the fair value at initial recognition.

After initial recognition, the entity will apply a valuation technique to establish the financial assets' fair value. This valuation technique includes variables other than data from observable markets.

At initial recognition, the same valuation technique would have resulted in an amount of $14 million, which differs from fair value by $1 million.

The entity has existing differences of $5 million at 1 January 20X1.

Solution

Application of requirements

The entity's 20X2 disclosure would include the following:

Accounting policies

The entity uses the following valuation technique to determine the fair value of financial instruments that are not traded in an active market: [description of technique, not included in this example]. Differences may arise between the fair value at initial recognition (which, in accordance with IAS 39, is generally the transaction price) and the amount determined at initial recognition using the valuation technique. Any such differences are [description of the entity's accounting policy].

In the notes to the financial statements

As discussed in note X, the entity uses [name of valuation technique] to measure the fair value of the following financial instruments that are not traded in an active market. However, in accordance with IAS 39, the fair value of an instrument at inception is generally the transaction price. If the transaction price differs from the amount determined at inception using the valuation technique, that difference is [description of the entity's accounting policy]. The differences yet to be recognised in profit or loss are as follows:

	31 Dec 20X2 $m	*31 Dec 20X1* $m
Balance at beginning of year	5.3	5.0
New transactions		1.0
Amounts recognised in profit or loss during the year	(0.7)	(0.8)
Other increases		0.2
Other decreases	(0.1)	(0.1)
Balance at end of year	4.5	5.3

Disclosures of fair value are **not required** if carrying value is a reasonable approximation to fair value, or if fair value cannot be measured reliably.

6.3 Nature and extent of risks arising from financial instruments

In undertaking transactions in financial instruments, an entity may assume or transfer to another party one or more of **different types of financial risk** as defined below. The disclosures required by the standard show the extent to which an entity is exposed to these different types of risk, relating to both recognised and unrecognised financial instruments.

Credit risk	The risk that one party to a financial instrument will cause a financial loss for the other party by failing to pay for its obligation.
Liquidity risk	The risk that an entity will encounter difficulty in paying its financial liabilities. (Loans payable are financial liabilities, other than short-term trade payables on normal credit terms.)
Market risk	The risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices.

6.3.1 Qualitative disclosures

For each type of risk arising from financial instruments, an entity must disclose:

(a) The **exposures to risk** and how they arise,

(b) Its objectives, policies and processes for managing the risk and the methods used to measure the risk,

(c) Any **changes** in (a) or (b) from the previous period.

6.3.2 Quantitative disclosures

For each financial instrument risk, **summary quantitative data** about risk exposure must be disclosed. This should be based on the information provided internally to key management personnel. More information should be provided if this is unrepresentative.

Information about **credit risk** must be disclosed by class of financial instrument:

(a) Maximum exposure at the year end

(b) Any collateral pledged as security

(c) In respect of the amount disclosed in (b), a description of collateral held as security and other credit enhancements

(d) Information about the credit quality of financial assets that are neither **past due** nor impaired

(e) Financial assets that are past due or impaired, giving an age analysis and a description of collateral held by the entity as security.

(f) Collateral and other credit enhancements obtained, including the nature and carrying amount of the assets and policy for disposing of assets not readily convertible into cash.

For **liquidity risk** entities must disclose:

(a) A maturity analysis of financial liabilities
(b) A description of the way risk is managed

Disclosures required in connection with **market risk** are:

(a) Sensitivity analysis, showing the effects on profit or loss of changes in each market risk
(b) Additional information if the sensitivity analysis is not representative of the entity's risk exposure

6.4 Capital disclosures

Certain disclosures about **capital** are required. An entity's capital does not relate solely to financial instruments, but has more general relevance. Accordingly, those disclosures are included in IAS 1, rather than in IFRS 7.

Section summary

IFRS 7 specifies the **disclosures** required for financial instruments. The standard requires qualitative and quantitative disclosures about exposure to risks arising from financial instruments and specifies minimum disclosures about credit risk, liquidity risk and market risk.

Chapter Roundup

- ✓ Financial instruments can be very complex, particularly **derivative instruments**, although **primary instruments** are more straightforward.
- ✓ The important definitions to learn are:
  - **Financial asset**
  - **Financial liability**
  - **Equity instrument**
- ✓ Financial instruments must be classified as **liabilities** or **equity** according to their **substance.**
- ✓ The critical feature of a financial liability is the **contractual obligation to deliver cash** or another financial asset.
- ✓ **Compound instruments** are split into **equity** and **liability** components and presented accordingly in the statement of financial position.
- ✓ **IAS 39** *Financial instruments: recognition and measurement* is a recent and most controversial standard.
- ✓ The IAS states that **all financial assets and liabilities** should be **recognised in the statement of financial position, including derivatives**.
- ✓ **Financial assets** should **initially** be measured at **cost = fair value**.
- ✓ Subsequently they should be **re-measured to fair value** except for
  - (a) Loans and receivables not held for trading
  - (b) Other **held-to-maturity investments**
  - (c) **Financial assets** whose value **cannot be reliably measured**
- ✓ **Hedging** is allowed in certain strictly defined circumstances.
- ✓ **IFRS 7** specifies the **disclosures** required for financial instruments. The standard requires quantitative and qualitative disclosures about exposure to risks arising from financial instruments and specifies minimum disclosures about credit risk, liquidity risk and market risk.

Quick Quiz

1 Which four issues are dealt with by IAS 32?

2 What items are *not* financial instruments according to IAS 32?

3 What is the critical feature used to identify a financial liability?

4 How should compound instruments be presented in the statement of financial position?

5 When should a financial asset be de-recognised?

6 How are financial instruments initially measured?

7 What is hedging?

8 Name the three types of hedging relationship identified by IAS 39.

Answers to Quick Quiz

1 Classification; presentation; offsetting and disclosure

2 Physical assets; prepaid expenses; non-contractual assets or liabilities; contractual rights not involving transfer of assets

3 The contractual obligation to deliver cash or another financial asset to the holder

4 By calculating the present value of the liability component and then deducting this from the instrument as a whole to leave a residual value for the equity component

5 Financial assets should be derecognised when the rights to the cash flows from the asset expire or where substantially all the risks and rewards of ownership are transferred to another party.

6 At cost

7 Hedging, for accounting purposes, means designating one or more hedging instruments so that their change in fair value is an offset, in whole or in part, to the change in fair value or cash flows of a hedged item.

8 Fair value hedge; cash flow hedge; hedge of a net investment in a foreign operation

Answers to Questions

2.1 Why not?

Refer to the definitions of financial assets and liabilities given above.

(a) **Physical assets**: control of these creates an opportunity to generate an inflow of cash or other assets, but it does not give rise to a present right to receive cash or other financial assets.

(b) **Prepaid expenses, etc**: the future economic benefit is the receipt of goods/services rather than the right to receive cash or other financial assets.

(c) **Deferred revenue, warranty obligations**: the probable outflow of economic benefits is the delivery of goods/services rather than cash or another financial asset.

2.2 Risks and rewards

IAS 39 includes the following examples:

(a) (i) An unconditional sale of a financial asset

(ii) A sale of a financial asset together with an option to repurchase the financial asset at its fair value at the time of repurchase

(b) (i) A sale and repurchase transaction where the repurchase price is a fixed price or the sale price plus a lender's return

(ii) A sale of a financial asset together with a total return swap that transfers the market risk exposure back to the entity

2.3 Finance cost 1

C The premium on redemption of the preferred shares represents a finance cost. The effective rate of interest must be applied so that the debt is measured at amortised cost (IAS 39).

At the time of issue, the loan notes are recognised at their net proceeds of $599,800 (600,000 – 200).

The finance cost for the year ended 31 December 20X4 is calculated as follows:

	B/f	*Interest @ 12%*	*C/f*
	$	$	$
20X3	599,800	71,976	671,776
20X4	671,776	80,613	752,389

2.4 Exam standard example

Item (a)

The bond is a financial asset 'held to maturity'. It is therefore held at amortised cost calculated as follows.

Total finance income:

Coupon receipts (5 × 4% × 200,000)	40,000
Deep discount income (200,000 – (157,563 + 200))	42,237
Total income	82,237

Spread using effective interest rate of the bond, 9.5%, as follows.

	$
Cash – 1.1.20X0 (157,563 + 200)	157,763
Interest 20X0 (9.5% × 157,763)	14,988
Coupon received (4% × 200,000)	(8,000)
At 31.12.20X0	164,751
Interest 20X1 (9.5% × 164,751)	15,651
Coupon received (4% × 200,000)	(8,000)
At 31.12.20X1	172,402

Item (b)

Despite being called 'shares', the redeemable preference shares are, in substance, debt and are therefore accounted for as a financial liability.

They are held at amortised cost as a company's own shares cannot be classified as held for trading. They will be shown under non-current liabilities. The annual 'dividend' payments of 7% × 60,000 × $1 = $4,200 will be classified as interest payable.

Item (c)

Unless held for short-term profit-making, shares held as an investment fall into the category 'available-for-sale' financial assets. They are originally recorded at their cost (plus transaction costs) on 1 July 20X0 and revalued to fair value at the year end (31/12/X0) with a gain of $690 reported in other comprehensive income ('items that may be reclassified subsequently to profit or loss'):

	$
Fair value at 31.12.X0 (12,000 shares × $1.32)	15,840
Cost (1.1.X0) [(12,000 shares × $1.25 = $15,000) + (1% × $15,000)]	(15,150)
Fair value gain (to other comprehensive income)	690

When the shares are sold, this fair value gain is reclassified from other comprehensive income to profit or loss and a profit on derecognition is recognised:

	$
Proceeds ($16,800 – (1% × $16,800))	16,632
Less: carrying value of financial asset	(15,840)
	792
Fair value gain reclassified from OCI	690
Total gain to be recognised in profit or loss	1,482

Item (d)

A forward contract to be settled net in cash and not held for hedging purposes is accounted for at fair value through profit or loss.

The value of the contract at inception is zero.

The value of the contract at the year end is:

	$
Market price of forward contract at year end for delivery on 30 April 20X2	5,000
Palermo's forward price	(6,000)
Loss (as Palermo have to pay $1,000 more under their forward than they would at year end prices)	(1,000)

A financial liability of $1,000 is therefore recognised with a corresponding charge of $1,000 to profit or loss.

2.5 Impairment

IAS 39 lists the following:

(a) Significant financial difficulty of the issuer

(b) A breach of contract, such as a default in interest or principal payments

(c) The lender granting a concession to the borrower that the lender would not otherwise consider, for reasons relating to the borrower's financial difficulty

(d) It becomes probable that the borrower will enter bankruptcy

(e) The disappearance of an active market for that financial asset because of financial difficulties

Now try this question from the Exam Question Bank

Number	Level	Marks	Time
Q2	Introductory	10	18 mins

EMPLOYEE BENEFITS

An increasing number of companies and other entities now provide a **pension and other benefits** in addition to salaries and wages as part of their employees' remuneration package. In view of this trend, it is important that there is standard best practice for the way in which employee benefit costs are **recognised, measured, and presented** in the sponsoring entities' accounts.

Note that IAS 19 was revised in June 2011.

3

topic list	learning outcomes	syllabus references	ability required
1 IAS 19 *Employee benefits*	B1	B1 (v)	Application
2 Short-term employee benefits	B1	B1 (v)	Application
3 Post-employment benefits	B1	B1 (v)	Application
4 Defined contribution plans	B1	B1 (v)	Application
5 Defined benefit plans: recognition and measurement	B1	B1 (v)	Application
6 Defined benefit plans: other matters	B1	B1 (v)	Application
7 Other long term benefits	B1	B1 (v)	Application
8 Disclosures	B1	B1 (v)	Application
9 Other issues	B1	B1 (v)	Application

1 IAS 19 *Employee benefits* 11/11

Introduction

When a company or other entity employs a new worker, that worker will be offered a **package of pay and benefits**. Some of these will be short-term and the employee will receive the benefit at about the same time as he or she earns it, for example basic pay, overtime etc. Other employee benefits are **deferred**, however, the main example being retirement benefits (ie a pension).

1.1 The conceptual nature of employee benefit costs

The cost of these deferred employee benefits to the employer can be viewed in various ways. They could be described as **deferred salary** to the employee. Alternatively, they are a **deduction** from the employee's true gross salary, used as a tax-efficient means of saving. In some countries, tax efficiency arises on retirement benefit contributions because they are not taxed on the employee, but they are allowed as a deduction from taxable profits of the employer.

1.2 Accounting for employee benefit costs

Accounting for **short-term employee benefit costs** tends to be quite straightforward, because they are simply recognised as an expense in the employer's financial statements of the current period.

Accounting for the cost of **deferred employee benefits** is much more difficult. This is because of the large amounts involved, as well as the long time scale, complicated estimates and uncertainties. In the past, entities accounted for these benefits simply by charging the statements of profit or loss and other comprehensive income of the employing entity on the basis of actual payments made. This led to substantial variations in reported profits of these entities and disclosure of information on these costs was usually sparse.

1.3 IAS 19 *Employee benefits*

IAS 19 is intended to prescribe the following.

(a) When the cost of employee benefits should be **recognised as a liability or an expense**
(b) The **amount** of the liability or expense that should be recognised

As a basic rule, the standard states the following.

(a) A **liability** should be recognised when an employee has provided a service in exchange for benefits to be received by the employee at some time in the future.

(b) An **expense** should be recognised when the entity enjoys the economic benefits from a service provided by an employee regardless of when the employee received or will receive the benefits from providing the service.

The basic problem is therefore fairly straightforward. An entity will often enjoy the **economic benefits** from the services provided by its employees in advance of the employees receiving all the employment benefits from the work they have done, for example they will not receive pension benefits until after they retire.

1.4 Categories of employee benefits

The standard recognises four categories of employee benefits, and proposes a different accounting treatment for each. These four categories are as follows.

1 **Short-term** benefits including:

- Wages and salaries
- Social security contributions
- Paid annual leave
- Paid sick leave
- Paid maternity/paternity leave
- Profit shares and bonuses
- Paid jury service
- Paid military service
- Non-monetary benefits, eg medical care, cars, free or subsidised goods

2 **Post-employment benefits**, eg pensions and post-employment medical care and post-employment insurance

3 **Other long-term benefits**, eg profit shares, bonuses or deferred compensation payable later than 12 months after the year end, sabbatical leave, long-service benefits and long-term disability benefits

4 **Termination benefits**, eg early retirement payments and redundancy payments

Benefits may be paid to the employees themselves, to their dependants (spouses, children, etc) or to third parties.

1.5 Definitions

IAS 19 uses a great many important definitions. This section lists those that relate to the different categories of employee benefits.


KEY TERMS

EMPLOYEE BENEFITS are all forms of consideration given by an entity in exchange for service rendered by employees or for the termination of employment.

SHORT-TERM EMPLOYEE BENEFITS are employee benefits (other than termination benefits) that are expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

POST-EMPLOYMENT BENEFITS are employee benefits (other than termination benefits and short-term employee benefits) that are payable after the completion of employment.

OTHER LONG-TERM EMPLOYEE BENEFITS are all employee benefits other than short-term employee benefits, post-employment benefits and termination benefits.

TERMINATION BENEFITS are employee benefits provided in exchange for the termination of an employee's employment as a result of either:

(a) an entity's decision to terminate an employee's employment before the normal retirement date, or
(b) an employee's decision to accept an offer of benefits in exchange for

Section summary

IAS 19 *Employee benefits* is a long and complex standard covering both short-term and long-term (post-employment) benefits. The complications arise when dealing with **post-employment benefits**.

2 Short-term employee benefits

Introduction

Accounting for short-term employee benefits is fairly straightforward, because there are **no actuarial assumptions** to be made, and there is **no requirement to discount** future benefits (because they are all, by definition, payable no later than 12 months after the end of the accounting period).

2.1 Recognition and measurement

The rules for short-term benefits are essentially an application of **basic accounting principles and practice**.

(a) **Unpaid short-term employee benefits** as at the end of an accounting period should be recognised as an accrued expense. Any short-term benefits **paid in advance** should be recognised as a prepayment (to the extent that it will lead to, eg a reduction in future payments or a cash refund).

(b) The **cost of short-term employee benefits** should be recognised as an **expense** in the period when the economic benefit is given, as employment costs (except insofar as employment costs may be included within the cost of an asset, eg property, plant and equipment).

2.2 Short-term absences

There may be **short-term accumulating compensated absences**. These are absences for which an employee is paid, and if the employee's entitlement has not been used up at the end of the period, they are carried forward to the next period. An example is paid holiday leave, where any unused holidays in one year are carried forward to the next year. The cost of the benefits of such absences should be **charged as an expense** as the employees render service that increases their entitlement to future compensated absences.

There may be **short-term non-accumulating compensated absences**. These are absences for which an employee is paid when they occur, but an **entitlement to the absences does not accumulate**. The employee can be absent, and be paid, but only if and when the circumstances arise. Examples are maternity/paternity pay, (in most cases) sick pay, and paid absence for jury service.

2.3 Measurement

The cost of accumulating paid absences should be measured as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the end of the reporting period.

Example: unused holiday leave

A company gives its employees an annual entitlement to paid holiday leave. If there is any unused leave at the end of the year, employees are entitled to carry forward the unused leave for up to 12 months. At the end of 20X9, the company's employees carried forward in total 50 days of unused holiday leave. Employees are paid $100 per day.

Required

State the required accounting for the unused holiday carried forward.

Solution

The short-term accumulating compensated absences should be recognised as an expense in the year when the entitlement arises, ie in 20X9 with a corresponding accrual. The amount would be the 50 unused holiday days multiplied by the daily salary of $100 ie $5,000 in total (providing that all 50 days' holiday are likely to be taken in the following year).

Question 3.1 Sick leave

Learning outcomes B1

Plyman Co has 100 employees. Each is entitled to five working days of paid sick leave for each year, and unused sick leave can be carried forward for one year. Sick leave is taken on a LIFO basis (ie firstly out of the current year's entitlement and then out of any balance brought forward).

As at 31 December 20X8, the average unused entitlement is two days per employee. Plyman Co expects (based on past experience which is expected to continue) that 92 employees will take five days or less sick leave in 20X9, the remaining eight employees will take an average of 6½ days each.

Required

State the required accounting for sick leave for the year ended 31 December 20X8.

2.4 Profit sharing or bonus plans

Profit shares or bonuses payable within 12 months after the end of the accounting period should be recognised as an expense when the entity has a **present obligation to pay it**, ie when the employer has no real option but to pay it. This will usually be when the employer recognises the profit or other performance achievement to which the profit share or bonus relates. The measurement of the constructive obligation reflects the possibility that some employees may leave without receiving a bonus.

Example: profit sharing plan

Mooro Co runs a profit sharing plan under which it pays 3% of its net profit for the year to those employees who have not left during the year. Mooro Co estimates that this will be reduced by staff turnover to 2.5% in 20X9.

Required

Which costs should be recognised by Mooro Co for the profit share in 20X9?

Solution

Mooro Co should recognise a liability and an expense of 2.5% of net profit.

Section summary

There are **no specific disclosure requirements for short-term employee benefits** in the standard.

3 Post-employment benefits 3/11, 5/11, 11/11, 5/12, 9/12, 11/12, 3/13

Introduction

Many employers provide post-employment benefits for their employees after they have stopped working. **Pension schemes** are the most obvious example, but an employer might provide post-employment death benefits to the dependants of former employees, or post-employment medical care.

3.1 General

Post-employment benefit schemes are often referred to as '**plans**'. The 'plan' receives regular contributions from the employer (and sometimes from current employees as well) and the money is invested in assets, such as stocks and shares and other investments. The post-employment benefits are paid out of the income from the plan assets (dividends, interest) or from money from the sale of some plan assets.

3.2 Definitions

IAS 19 sets out the following definitions relating to classification of plans.

KEY TERMS

DEFINED CONTRIBUTION PLANS are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

DEFINED BENEFIT PLANS are post-employment benefit plans other than defined contribution plans.

MULTI-EMPLOYER PLANS are defined contribution plans (other than state plans) or defined benefit plans (other than state plans) that:

(a) Pool the assets contributed by various entities that are not under common control, and

(b) Use those assets to provide benefits to employees of more than one entity, on the basis that contribution and benefit levels are determined without regard to the identity of the entity that employs the employees concerned.

There are two types or categories of post-employment benefit plan, as given in the definitions above.

(a) **Defined contribution plans**. With such plans, the employer (and possibly current employees too) pay regular contributions into the plan of a given or 'defined' amount each year. The contributions are invested, and the size of the post-employment benefits paid to former employees depends on how well or how badly the plan's investments perform. If the investments perform well, the plan will be able to afford higher benefits than if the investments performed less well.

(b) **Defined benefit plans**. With these plans, the size of the post-employment benefits is determined in advance, ie the benefits are 'defined'. The employer (and possibly current employees too) pay contributions into the plan, and the contributions are invested. The size of the contributions is set at an amount that is expected to earn enough investment returns to meet the obligation to pay the post-employment benefits. If, however, it becomes apparent that the assets in the fund are insufficient, the employer will be required to make additional contributions into the plan to make up the expected shortfall. On the other hand, if the fund's assets appear to be larger than they need to be, and in excess of what is required to pay the post-employment benefits, the employer may be allowed to take a 'contribution holiday' (ie stop paying in contributions for a while).

It is important to make a clear distinction between the following.

- **Funding** a defined benefit plan, ie paying contributions into the plan
- **Accounting for** the cost of funding a defined benefit plan

The key difference between the two types of plan is the nature of the 'promise' made by the entity to the employees in the scheme:

(a) Under a **defined contribution** plan, the 'promise' is to pay the agreed amount of contributions, Once this is done, the entity has no further liability and no exposure to risks related to the performance of the assets held in the plan.

(b) Under a **defined benefit** plan, the 'promise' is to pay the amount of benefits agreed under the plan. The entity is taking on a far more uncertain liability that may change in future as a result of many variables and has continuing exposure to risks related to the performance of assets held in the plan. In simple terms, of the plan assets are insufficient to meet the plan liabilities to pay pensions in future, the entity will have to make up any deficit.

3.3 Multi-employer plans

These were defined above. IAS 19 requires an entity to **classify** such a plan as a defined contribution plan or a defined benefit plan, depending on its terms (including any constructive obligation beyond those terms).

For a multi-employer plan that is a **defined benefit plan**, the entity should account for its proportionate share of the defined benefit obligation, plan assets and cost associated with the plan in the same way as for any other defined benefit plan and make full disclosure.

When there is **insufficient information** to use defined benefit accounting, then the multi-employer plan should be accounted for as a defined contribution plan and additional disclosures made (that the plan is in fact a defined benefit plan and information about any known surplus or deficit).

3.4 Recap

- There are two categories of **post-retirement benefit plans**:
  - Defined contribution plans
  - Defined benefit plans
- **Defined contribution plans** provide benefits commensurate with the fund available to produce them.
- **Defined benefit plans** provide promised benefits and so contributions are based on estimates of how the fund will perform.
- **Defined contribution plans costs** are easy to account for and this is covered in the next section.

Section summary

There are two types of post-employment benefit plan:

- Defined contribution plans
- Defined benefit plans

4 Defined contribution plans 11/12

Introduction

Defined contribution plans produce benefits based on contributions made.

4.1 Accounting

A typical defined contribution plan would be where the employing company agreed to contribute an amount of, say, 5% of employees' salaries into a post-employment plan.

Accounting for payments into defined contribution plans is straightforward.

(a) The **obligation** is determined by the amounts to be contributed for that period.

(b) There are no actuarial assumptions to make.

(c) If the obligation is settled in the current period (or at least no later than 12 months after the end of the current period) there is **no requirement for discounting**.

IAS 19 requires the following.

(a) **Contributions** to a defined contribution plan should be recognised as an **expense** in the period they are payable (except to the extent that labour costs may be included within the cost of assets).

(b) Any liability for **unpaid contributions** that are due as at the end of the period should be recognised as a **liability** (accrued expense).

(c) Any **excess contributions** paid should be recognised as an asset (prepaid expense), but only to the extent that the prepayment will lead to, eg a reduction in future payments or a cash refund.

In the (unusual) situation where contributions to a defined contribution plan do not fall due entirely within 12 months after the end of the period in which the employees performed the related service, then these should be **discounted**. The discount rate to be used is discussed below in paragraphs 5.22 and 5.23.

4.2 Disclosure requirements

The financial statements must disclose the amount recognised as an **expense** in the period. Where required by IAS 24, the entity should disclose information about contributions to defined contribution plans for key management personnel.

Section summary

Defined contribution plans are simple to account for as the benefits are defined by the contributions made.

5 Defined benefit plans: recognition and measurement 3/11, 5/11, 11/11, 5/12, 9/12, 11/12, 3/13, 5/13

Introduction

Defined benefit plans produce benefits set out at the start of the plan. The annual pension will be calculated with a formula. For example:

(Final salary/60) x number of years worked

5.1 Introduction

Accounting for defined benefit plans is much more complex. The complexity of accounting for defined benefit plans stems largely from the following factors.

(a) The future benefits (arising from employee service in the current or prior years) **cannot be estimated exactly**, but whatever they are, the employer will have to pay them, and the liability should therefore be recognised now. To estimate these future obligations, it is necessary to use **actuarial assumptions**.

(b) The obligations payable in future years should be valued, by discounting, on a **present value** basis. This is because the obligations may be settled in many years' time.

(c) If actuarial assumptions change, the amount of required contributions to the fund will change, and there may be **remeasurement gains or losses**. A contribution into a fund in any period is not necessarily the total for that period, due to actuarial gains or losses.

IAS 19 defines the following key terms to do with defined benefit plans.


KEY TERMS

The NET DEFINED BENEFIT LIABILITY (ASSET) is the deficit or surplus, adjusted for any effect of limiting a net defined benefit asset to the asset ceiling.

The DEFICIT OR SURPLUS is:

(a) the present value of the defined benefit obligation less
(b) the fair value of plan assets (if any).

The ASSET CEILING is the present value of any economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The PRESENT VALUE OF A DEFINED BENEFIT obligation is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

PLAN ASSETS comprise:

(a) Assets held by a long-term employee benefit fund; and

(b) Qualifying insurance policies

ASSETS HELD BY A LONG-TERM EMPLOYEE BENEFIT FUND are assets (other than non-transferable financial instruments issued by the reporting entity) that:

(a) are held by an entity (a fund) that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and

(b) are available to be used only to pay or fund employee benefits, are not available to the reporting entity's own creditors (even in bankruptcy), and cannot be returned to the reporting entity, unless either:

  (i) the remaining assets of the fund are sufficient to meet all the related employee benefit obligations of the plan or the reporting entity; or

  (ii) the assets are returned to the reporting entity to reimburse it for employee benefits already paid.

A QUALIFYING INSURANCE POLICY is an insurance policy issued by an insurer that is not a related party (as defined in IAS 24 *Related party disclosures*) of the reporting entity, if the proceeds of the policy:

(a) can be used only to pay or fund employee benefits under a defined benefit plan; and

(b) are not available to the reporting entity's own creditors (even in bankruptcy) and cannot be paid to the reporting entity, unless either:

(i) the proceeds represent surplus assets that are not needed for the policy to meet all the related employee benefit obligations; or

(ii) the proceeds are returned to the reporting entity to reimburse it for employee benefits already paid.

FAIR VALUE is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date.

5.2 Outline of the method

An outline of the method used for an employer to account for the expenses and obligation of a defined benefit plan is given below. The stages will be explained in more detail later.

Determine the deficit or surplus:

(a) An **actuarial technique** (the **Projected Unit Credit Method**), should be used to make a reliable estimate of the amount of future benefits employees have earned from service in relation to the current and prior years. The entity must determine how much benefit should be attributed to service performed by employees in the current period, and in prior periods. Assumptions include, for example, assumptions about employee turnover, mortality rates, future increases in salaries (if these will affect the eventual size of future benefits such as pension payments).

(b) The benefit should be **discounted** to arrive at the present value of the defined benefit obligation and the current service cost.

(c) The **fair value** of any **plan assets** should be deducted from the present value of the defined benefit obligation.

The surplus or deficit determined in Step 1 may have to be adjusted if a net benefit asset has to be restricted by the **asset ceiling**.

Determine the amounts to be recognised in **profit or loss**:

(a) **Current service cost**
(b) Any **past service cost** and **gain or loss on settlement**
(c) **Net interest** on the **net defined benefit liability (asset)**

Determine the **remeasurements** of the **net defined benefit liability (asset)**, to be recognised in other **comprehensive income** (items that will not be **reclassified to profit or loss):**

(a) **Actuarial gains and losses**

(b) **Return on plan assets** (excluding amounts included in net interest on the net defined benefit liability (asset))

(c) Any change in the effect of the **asset ceiling** (excluding amounts included in net interest on the net defined benefit liability (asset))

5.3 Constructive obligation

IAS 19 makes it very clear that it is not only its legal obligation under the formal terms of a defined benefit plan that an entity must account for, but also any **constructive obligation** that it may have. A constructive obligation, which will arise from the entity's informal practices, exists when the entity has no realistic alternative but to pay employee benefits, for example if any change in the informal practices would cause unacceptable damage to employee relationships.

5.4 The projected unit credit method

With this method, it is assumed that each period of service by an employee gives rise to an **additional unit of future benefits**. The present value of that unit of future benefits can be calculated, and attributed to the period in which the service is given. The units, each measured separately, build up to the overall obligation. The accumulated present value of (discounted) future benefits will incur interest over time, and an interest expense should be recognised.

These calculations are complex and would normally be carried out by an actuary. In the exam, you will be given the figures but the following example (from IAS 19) is included to explain the method.

Example: projected unit credit method

A lump sum benefit is payable on termination of service and equal to 1% of final salary for each year of service. The salary in year 1 is $10,000 and is assumed to increase at 7% (compound) each year. The discount rate used is 10% per year. The following table shows how the obligation builds up for an employee who is expected to leave at the end of year 5, assuming that there are no changes in actuarial assumptions. For simplicity, this example ignores the additional adjustment needed to reflect the probability that the employee may leave the entity at an earlier or later date.

Year	1	2	3	4	5
	$	$	$	$	$
Benefit attributed to:					
Prior years	0	131	262	393	524
Current year (1% × final salary)	131	131	131	131	131
Current and prior years	131	262	393	524	655
Opening obligation	-	89	196	324	476
Interest at 10%	-	9	20	33	48
Current service cost	89	98	108	119	131
Closing obligation	89	196	324	476	655

Notes:

1. *The opening obligation is the present value of the benefit attributed to prior years.*
2. *The current service cost is the present value of the benefit attributed to the current year.*
3. *The closing obligation is the present value of the benefit attributed to current and prior years.*

5.5 Actuarial assumptions

Actuarial assumptions are needed **to estimate the size of the future (post-employment) benefits** that will be payable under a defined benefits scheme. The main categories of actuarial assumptions are as follows.

(a) **Demographic assumptions** are about mortality rates before and after retirement, the rate of employee turnover, early retirement, claim rates under medical plans for former employees, and so on.

(b) **Financial assumptions** include future salary levels (allowing for seniority and promotion as well as inflation) and the future rate of increase in medical costs (not just inflationary cost rises, but also cost rises specific to medical treatments and to medical treatments required given the expectations of longer average life expectancy).

The standard requires actuarial assumptions to be neither too cautious nor too imprudent: they should be '**unbiased**'. They should also be based on '**market expectations**' at the year end, over the period during which the obligations will be settled.

5.6 The statement of financial position

In the statement of financial position, the amount recognised as a **net defined benefit liability** (which may be a negative amount, ie an asset) should be the following.

(a) The **present value of the defined obligation** at the year end, **minus**

(b) The **fair value of the assets of the plan** as at the year end (if there are any) out of which the future obligations to current and past employees will be directly settled.

The earlier parts of this section have looked at the recognition and measurement of the defined benefit obligation. Now we will look at issues relating to the assets held in the plan.

5.7 Plan assets

Plan assets are:

(a) Assets such as stocks and shares, held by a fund that is legally separate from the reporting entity, which exists solely to pay employee benefits.

(b) Insurance policies, issued by an insurer that is not a related party, the proceeds of which can only be used to pay employee benefits.

Investments which may be used for purposes other than to pay employee benefits are not plan assets.

The standard requires that the plan assets are measured at fair value, as 'the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date'. You may spot that this definition is slightly different to the revised definition in accordance with IFRS 13 *Fair value measurement* (see Chapter 5). The two standards were being updated around the same time so the definitions are currently out of step, but this should make no difference to the practicalities you will have to deal with in questions, where the fair value is normally stated in the scenario information.

IAS 19 includes the following **specific requirements**:

(a) The plan assets should exclude any contributions due from the employer but not yet paid.

(b) Plan assets are reduced by any liabilities of the fund that do not relate to employee benefits, such as trade and other payables.

5.8 The statement of profit or loss and other comprehensive income

All of the gains and losses that affect the plan obligation and plan asset must be recognised. The **components of defined benefit cost must be recognised as follows** in the statement of profit or loss and other comprehensive income:

Component	*Recognised in*
(a) **Service cost**	Profit or loss
(b) **Net interest on the net defined benefit liability**	Profit or loss
(c) **Remeasurements of the net defined benefit liability**	Other comprehensive income (not reclassified to P/L)

5.9 Service costs

These comprise:

(a) **Current service cost**, this is the increase in the present value of the defined benefit obligation resulting from employee services during the period. The measurement and recognition of this cost was introduced in Section 5.1.

(b) **Past service cost**, which is the change in the obligation relating to service in **prior periods**. This results from amendments or curtailments to the pension plan, and

(c) Any **gain or loss on settlement.**

The detail relating to points (b)and (c) above will be covered in a later section. First, we will continue with the basic elements of accounting for defined benefit pension costs.

5.10 Net interest on the defined benefit liability (asset)

In Section 5.1 we looked at the recognition and measurement of the defined benefit obligation. This figure is the discounted **present value** of the future benefits payable. Every year the discount must be 'unwound', increasing the present value of the obligation as time passes through an interest charge.

5.10.1 Interest calculation

IAS 19 requires that the interest should be calculated on the **net defined benefit liability (asset)**. This means that the amount recognised in profit or loss is the net of the interest charge on the obligation and the interest income recognised on the assets.

The calculation is as follows:

The **net defined benefit liability/(asset)** should be determined as at the **start** of the accounting period, taking account of changes during the period as a result of contributions paid into the plan and benefits paid out.

Many exam questions include the assumption that all payments into and out of the plan take place at the end of the year, so that the interest calculations can be based on the opening balances.

In the exam, **interest** will need to be **calculated separately** on the opening defined benefit obligation and the opening **plan assets** to be able to find the remeasurement gains/losses as a balancing figure (see paragraph 5.11 below) as follows:

Then the **net interest cost** (or income) is posted to **profit or loss** and represents the **financing effect** of paying for benefits in advance (if there is a net pension asset and surplus ie net interest *income*) or in arrears (if there is a net pension liability and deficit ie net interest *cost*).

5.10.2 Discount rate

The **discount rate** adopted should be determined by reference to **market yields** on high quality fixed-rate corporate bonds. In the absence of a 'deep' market in such bonds, the yields on comparable government bonds should be used as reference instead. The maturity of the corporate bonds that are used to determine a discount rate should have a term to maturity that is consistent with the expected maturity of the post-employment benefit obligations, although a single weighted average discount rate is sufficient.

The guidelines comment that there may be some difficulty in obtaining a **reliable yield for long-term maturities**, say 30 or 40 years from now. This should not, however, be a significant problem: the present value of obligations payable in many years time will be relatively small and unlikely to be a significant proportion of the total defined benefit obligation. The total obligation is therefore unlikely to be sensitive to errors in the assumption about the discount rate for long-term maturities (beyond the maturities of long-term corporate or government bonds).

5.11 Remeasurements of the net defined benefit liability 5/11

Remeasurements of the net defined benefit liability/(asset) comprise:

(a) Actuarial gains and losses;

(b) The return on plan assets, (excluding amounts included in net interest on the net defined benefit liability/(asset)); and

(c) Any change in the effect of the asset ceiling, (excluding amounts included in net interest on the net defined benefit liability/(asset)).

The gains and losses relating to points (a) and (b) above will arise in every defined benefit scheme so we will look at these in this section. The asset ceiling is a complication that is not relevant in every case, so it is dealt with separately, later in the chapter.

5.11.1 Remeasurement gains or losses on defined benefit obligation

At the end of each accounting period, a new valuation, using updated assumptions, should be carried out on the obligation. Remeasurement ('actuarial') gains or losses arise because of the following.

- **Actual events** (eg employee turnover, salary increases) differ from the actuarial assumptions that were made to estimate the defined benefit obligations
- The effect of **changes to assumptions** concerning benefit payment options
- **Estimates are revised** (eg different assumptions are made about future employee turnover, salary rises, mortality rates, and so on)
- The effect of changes to the **discount rate**

Remeasurement gains and losses are recognised in **other comprehensive income**. They are **not reclassified to profit or loss** under the 2011 revision to IAS 1 (see Chapter 17).

5.11.2 Remeasurement gains or losses on plan assets

A new valuation of the plan assets is carried out at each period end, using current fair values. Any **difference between the new value, and what has been recognised up to that date** (normally the opening balance, interest, and any cash payments into or out of the plan) is treated as a '**remeasurement**' and recognised in other comprehensive income.

This remeasurement gain or loss represents the **difference between the return on the plan assets and the interest income** included in the net defined pension liability (or asset). The **return** on the plan assets is the increase in the value of the investments over time and is defined as **interest, dividends and other income** derived from the plan assets together with **realised and unrealised gains or losses** on the plan assets, less any costs of managing plan assets and tax payable by the plan itself.

Example

At 1 January 20X2 the fair value of the assets of a defined benefit plan were valued at $1,100,000 and the present value of the defined benefit obligation was $1,250,000. On 31 December 20X2, the plan received contributions from the employer of $490,000 and paid out benefits of $190,000.

The current service cost for the year was $360,000 and a discount rate of 6% is to be applied to the net liability/(asset).

After these transactions, the fair value of the plan's assets at 31 December 20X2 was $1,500,000. The present value of the defined benefit obligation was $1,553,600.

Required

Calculate the remeasurement gains or losses on the defined benefit obligation and plan assets and illustrate how this pension plan will be treated in the statement of profit or loss and other comprehensive income and statement of financial position for the year ended 31 December 20X2.

Solution

It is always useful to set up a working reconciling the assets and obligation:

	Assets	*Obligation*
	$	$
Fair value/present value at 1/1/X2	1,100,000	1,250,000
Interest (1,100,000 × 6%)/(1,250,000 × 6%)	66,000	75,000
Current service cost		360,000
Contributions received	490,000	
Benefits paid	(190,000)	(190,000)
	1,466,000	1,495,000
Remeasurement gain on plan assets through OCI (balancing figure)	34,000	–
Remeasurement loss on defined benefit obligation through OCI (balancing figure)	-	58,600
Closing fair value/present value at 31/1/X2	1,500,000	1,553,600

The following accounting treatment is required.

(a) In the **statement of profit or loss and other comprehensive income**, the following amounts will be recognised:

In **profit or loss:**

	$
Current service cost	360,000
Net interest on net defined benefit liability (75,000 – 66,000)	9,000
	369,000

In **other comprehensive income:**

	$
Remeasurement gain on plan assets	34,000
Remeasurement loss on defined benefit obligation	(58,600)
	24,600

(b) In the **statement of financial position**, the net defined benefit liability of $53,600 (1,553,600 – 1,500,000) will be recognised.

5.12 Recap

The recognition and measurement of defined benefit plan costs are complex issues.

- Learn and understand the definitions of the various elements of a defined benefit pension plan
- Learn the **outline of the method of accounting** (see paragraph 5.2)
- Learn the recognition method for the:
  - Statement of financial position
  - Statement of profit or loss and other comprehensive income
- The examiner often uses the term 'plan liabilities' rather than 'defined benefit obligation'. Either can be used in the exam.

Section summary

Defined benefit plans are much more difficult to deal with as the benefits are promised so they define the contributions to be made.

Future benefits are attributed to services performed by employees using the **projected unit credit method**.

Discount rates used should be determined by reference to market yields on high-quality fixed-rate corporate bonds.

Actuarial assumptions made should be unbiased and based on market expectations.

Remeasurement gains or losses, which form part of the return on plan assets, arise due to differences between **the year end valuation of the defined benefit obligation and plan assets** and their **accounting value**. They are required to be recognised in **other comprehensive income**.

6 Defined benefit plans: other matters

Introduction

This section looks at the special circumstances of curtailments and settlements. These complications are less likely to appear in exam questions than the matters covered in the earlier sections of this chapter.

We have now covered the basics of accounting for defined benefit plans. This section looks at the special circumstances of past service costs, curtailments and settlements.

6.1 Past service cost and gains and losses on settlement

You should know how to deal with past service costs and curtailments and settlements.

In paragraph 5.9 we identified that the total service cost may comprise not only the current service costs but other items, past service cost and gains and losses on settlement. This section explain these issues and their accounting treatment.

6.1.1 Past service cost

Past service cost is the change in the present value of the defined benefit obligation resulting from a plan **amendment** or **curtailment**.

A plan **amendment** arises when an entity either introduces or withdraws, a defined benefit plan or **changes the benefits payable** under an existing plan. As a result, the entity has taken on additional obligations that it has not hitherto provided for (or reduced its obligation to its employees). For example, an employer might decide to introduce a medical benefits scheme for former employees. This will create a new defined benefit obligation, that has not yet been provided for.

A **curtailment occurs when an entity significantly reduces the number of employees covered by a plan**. This could result from an isolated event, such as closing a plant, discontinuing an operation or the termination or suspension of a plan.

Past service costs can be either **positive** (if the changes increase the obligation) or **negative** (if the change reduces the obligation).

6.1.2 Accounting for past service cost

An entity should **remeasure the obligation** (and the related plan assets, if any) using current actuarial assumptions, before determining past service cost or a gain or loss on settlement.

Past service costs are recognised at the earlier of the following dates:

(a) When the plan amendment or curtailment occurs, and

(b) When the entity recognises related restructuring costs (in accordance with IAS 37, see Chapter 18) or termination benefits.

6.1.3 Gains and losses on settlement

A **settlement** occurs either when an employer enters into a transaction to eliminate part or all of its post-employment benefit obligations (other than a payment of benefits to or on behalf of employees under the terms of the plan and included in the actuarial assumptions).

A curtailment and settlement might **happen together**, for example when an employer brings a defined benefit plan to an end by settling the obligation with a one-off lump sum payment and then scrapping the plan.

The gain or losses on a settlement is the difference between:

(a) The **present value of the defined benefit obligation** being settled, as valued on the date of the settlement; and

(b) The **settlement price**, including any plan assts transferred and any payments made by the entity directly in connection with the settlement.

6.1.4 Accounting for past service cost and gains and losses on settlement

An entity should **remeasure the obligation** (and the related plan assets, if any) using current actuarial assumptions, before determining past service cost or a gain or loss on settlement.

The rules for recognition for these items are as follows.

Past service costs are recognised at the earlier of the following dates:

(a) When the plan amendment or curtailment occurs, and

(b) When the entity recognises related restructuring costs (in accordance with IAS 37, see Chapter 18) or termination benefits.

6.1.5 Accounting for gains and losses on settlement

An entity should recognise a **gain or loss** on settlement in **profit or loss** when the **settlement occurs**.

6.2 Asset ceiling test

When we looked at the recognition of the net defined benefit liability/(asset) in the statement of financial position at the beginning of Section 5 the term 'asset ceiling' was mentioned. This term relates to a threshold established by IAS 19 to ensure that any defined benefit asset (ie a pension surplus) is carried at **no more than its recoverable amount**. In simple terms, this means that any net asset is restricted to the amount of cash savings that will be available to the entity in future.

6.3 Net defined benefit assets

A net defined benefit asset may arise if the plan has been overfunded or if actuarial gains have arisen. This meets the definition of an asset (as stated in the *Framework*) because **all** of the following apply.

(a) The entity **controls a resource** (the ability to use the surplus to generate future benefits).

(b) That control is the **result of past events** (contributions paid by the entity and service rendered by the employee).

(c) **Future benefits** are available to the entity in the form of a reduction in future contributions or a cash refund, either directly or indirectly to another plan in deficit.

The **asset ceiling** is the **present value** of those future benefits. The **discount rate used is the same** as that used to calculate the net interest on the net defined benefit liability/(asset). The net defined benefit asset would be reduced to the asset ceiling threshold. Any related write down would be treated as a **remeasurement** and recognised in **other comprehensive income**.

6.4 Suggested approach and question

The suggested approach to defined benefit schemes is to deal with the change in the obligation and asset in the following order.

Step	Item	Recognition
1	**Record opening figures:** • Asset • Obligation	
2	**Interest cost on plan liabilities** • Based on discount rate and PV obligation at start of period. • Should also reflect any changes in obligation during period.	DEBIT *Net interest cost (P/L) (x% × b/d liabilities)* CREDIT *Plan liabilities (SOFP)*
3	**Interest on plan assets** • Based on discount rate and asset value at start of period. • Technically, this interest is also time apportioned on contributions less benefits paid in the period.	DEBIT *Plan assets (SOFP)* CREDIT *Net interest cost (P/L) (x% × b/d assets)*
4	**Current service cost** • Increase in the present value of the obligation resulting from employee service in the current period.	DEBIT *Current service cost (P/L)* CREDIT *Plan liabilities (SOFP)*
5	**Contributions** • As advised by actuary.	DEBIT *Plan assets (SOFP)* CREDIT *Company cash*
6	**Benefits** • Actual pension payments made.	DEBIT *Plan liabilities (SOFP)* CREDIT *Plan assets (SOFP)*
7	**Past service cost** • Change in pension liabilities for employee service in prior periods, resulting from a plan amendment or curtailment.	**Positive (increase in obligation):** DEBIT *Past service cost (P/L)* CREDIT *Plan liabilities (SOFP)* **Negative (decrease in obligation):** DEBIT *Plan liabilities (SOFP)* CREDIT *Past service cost (P/L)*

Step	Item	Recognition
8	**Gains and losses on settlement** • Difference between the value of the obligation being settled and the settlement price.	**Gain** DEBIT *Plan liabilities (SOFP)* CREDIT *Plan assets* CREDIT *Cash* **Loss** DEBIT *Service cost (P/L)* DEBIT *Plan liabilities (SOFP)* CREDIT *Plan assets* CREDIT *Cash*
9	**Remeasurements: actuarial gains and losses** • Arising from annual valuations of liabilities. • On plan liabilities, differences between actuarial assumptions and actual experience during the period, or changes in actuarial assumptions.	**Gain** DEBIT *Plan liabilities (SOFP)* CREDIT *Other comprehensive income* **Loss** DEBIT *Other comprehensive income* CREDIT *Plan liabilities(SOFP)*
10	**Remeasurements: return on assets less interest income** • Arising from annual valuations of plan assets	**Gain** DEBIT *Plan assets (SOFP)* CREDIT *Other comprehensive income* **Loss** DEBIT *Other comprehensive income* CREDIT *Plan assets (SOFP)*
11	**Disclose in accordance with the standard**	See comprehensive question.

Exam skills

It would be useful for you to do one last question on accounting for post-employment defined benefit schemes. Questions on these are likely in the exam.

Question 3.2

Comprehensive

Learning outcomes B1

For the sake of simplicity and clarity, all transactions are assumed to occur at the year end.

The following data applies to the post employment defined benefit compensation scheme of BCD Co.

Discount rate: 10% (each year)

Present value of plan liabilities at start of 20X2: $1,600,000

Market value of plan assets at start of 20X2: $1,402,000

The following figures are relevant.

	20X2
	$'000
Current service cost	150
Benefits paid out	130
Contributions paid by entity	120
Present value of plan liabilities at year end	1,710
Fair value of plan assets at year end	1,610

At the end of 20X2, a decision was taken to make a one-off additional payment to former employees currently receiving pensions from the plan. This was announced to the former employees before the year end. This payment was not allowed for in the original terms of the scheme. The actuarial valuation of the obligation in the table above **includes** the additional liability of $40,000 relating to this additional payment.

Required

Show how the reporting entity should account for this defined benefit plan in 20X2.

Section summary

You should know how to deal with curtailments and settlements.

7 Other long term benefits

7.1 Definition

IAS 19 defines **other long-term employee benefits** as all employee benefits other than short-term employee benefits, post-employment benefits and termination benefits if not expected to be settled wholly before twelve months after the end of the annual reporting period in which the employees render the related service.

The types of benefits that might fall into this category include:

(a) Long-term paid absences such as long-service or sabbatical leave
(b) Jubilee or other long-service benefits
(c) Long-term disability benefits; profit-sharing and bonuses
(d) Deferred remuneration

7.2 Accounting treatment for other long-term benefits

There are many similarities between these types of benefits and defined benefit pensions. For example, in a long-term bonus scheme, the employees may provide service over a number of periods to earn their entitlement to a payment at a later date. In some case, the entity may put cash aside, or invest it in some way (perhaps by taking out an insurance policy) to meet the liabilities when they arise.

As there is normally far less uncertainty relating to the measurement of these benefits, IAS 19 requires a simpler method of accounting for them. Unlike the accounting method for post-employment benefits, this method does **not recognise remeasurements in other comprehensive income**.

The entity should recognise all of the following in **profit or loss**.

(a) **Service cost**
(b) **Net interest** on the defined benefit liability (asset)
(c) **Remeasurement** of the defined benefit liability (asset)

8 Disclosures

8.1 Principles of disclosures required by IAS 19

The outline requirements are for the entity to disclose information that:

(a) Explains the characteristics of its defined benefit plans and risks associated with them;

(b) Identifies and explains the amounts in its financial statements arising from its defined benefit plans; and

(c) Describes how its defined benefit plans may affect the amount, timing and uncertainty of the entity's future cash flows.

9 Other issues

This section is unlikely to be tested in detail, but it gives you some background knowledge in recent developments around pension reporting.

9.1 Revisions to IAS 19

In June 2011, the IASB issued a revised version of *IAS 19 Employee benefits.* It is the revised version that has been covered in this chapter. The purpose of the revision is to improve accounting in the short-term for employee benefits in the light of criticisms of the current IAS 19 by users and preparers of financial statements, including the US SEC and the EU's European Financial Reporting Advisory Group (that approves IFRS for use in the EU). In the long term, the IASB intends to produce a common IASB-FASB standard, but recognises that this will take many years to complete.

Accounting for employee benefits, particularly retirement benefits, had been seen as **problematic** in the following respects:

(a) **Income statement (statement of profit or loss and other comprehensive income) treatment.** It has been argued that the complexity of the presentation makes the treatment hard to understand and the splitting up of the various components is arbitrary.

(b) **Fair value and volatility.** The fair value of plan assets may be volatile, and values in the statement of financial position may fluctuate. However, not all those fluctuations are recognised in the statement of financial position.

(c) **Fair value and economic reality.** Fair value, normally market value, is used to value plan assets. This may not reflect economic reality, because fair values fluctuate in the short term, while pension scheme assets and liabilities are held for the long term. It could be argued that plan assets should be valued on an actuarial basis instead.

(d) **Problems in determining the discount rate used in measuring the defined benefit obligation.** Guidance is contradictory.

9.2 The main changes

9.2.1 Scope

Because the revised standard is a short-term measure, its **scope is limited to** the following areas.

(a) Recognition of gains and losses arising from defined benefit plans
(b) Presentation of changes in value of the defined benefit obligation and assets

However, the IASB recognises that the scope **could be expanded** to include items such as:

(a) **Recognition of the obligation based on the 'benefit' formula**. This current approach means that unvested benefits are recognised as a liability which is inconsistent with other IFRSs.

(b) **Measurement of the obligation**. The 'projected unit credit method' (as defined before) is used which is based on expected benefits (including salary increases). Alternative approaches include accumulated benefit, projected benefit, fair value and settlement value.

(c) **Presenting of a net defined benefit obligation**. Defined benefit plan assets and liabilities are currently presented net on the grounds that the fund is not controlled (which would require consolidation of the fund).

(d) **Multi-employer plans**. Current accounting is normally for the entity's proportionate share of the obligation, plan assets and costs as for a single-employer plan, but an exemption is currently provided where sufficient information is not available, and defined contribution accounting can be used instead. Should the exemption be removed?

(e) Accounting for **benefits that are based on contributions and a promised return**.

9.2.2 The main changes

(a) **Actuarial gains and losses**

(i) The revised standard requires actuarial gains and losses to be **recognised in the period incurred**.

(ii) The previous standard permitted a range of choices for the recognition of actuarial gains and losses:

(1) Immediate recognition in other comprehensive income (as now) was permitted

(2) Deferral of actuarial gains and losses was permitted through what was known as the 'corridor' method. The 'corridor' was defined as the higher of 10% of the opening plan assets or 10% of the opening plan obligation. If the accumulated actuarial gains and losses brought forward exceeded the corridor, the excess would then be divided by the average remaining service lives of employees in the scheme and this amount recognised in profit or loss. The balance of unrecognised gains and losses was carried on the statement of financial position.

(3) Actuarial gains and losses could also be recognised in profit or loss on any other systematic basis, subject to the 'corridor' amount as a minimum.

(iii) The changes will improve comparability between companies and will also eliminate some of the anomalies where the effect of unrecognised actuarial gains and losses (and unrecognised past service costs (see point (d) below) could turn a deficit into a surplus on the statement of financial position.

(b) **Remeasurements**

(i) The revised standard introduced the term 'remeasurements'. This is made up of the actuarial gains and losses on the defined benefit obligation, the difference between actual investment returns and the return implied by the net interest cost and the effect of the asset ceiling. Remeasurements are recognised immediately in other comprehensive income and **not** reclassified to profit or loss.

(ii) This reduces diversity of presentation that was possible under the previous standard.

(c) **Net interest cost**

(i) The revised standard requires interest to be calculated on **both** the plan assets and plan obligation at the same rate and the **net** interest to be recognised in the statement of profit or loss and other comprehensive income. The rationale for this is the view that the **net**

defined benefit liability/(asset) is equivalent to an amount owed by the company to the plan.

(ii) The difference under the previous standard was that an 'Expected return on assets' was calculated, based on assumptions about the long term rates of return on the particular classes of asset held within the plan.

(d) **Past service costs**

(i) The revised standard requires all past service costs to be recognised in the period of plan amendment.

(ii) The previous standard made a distinction between past service costs that were **vested** (all past service costs related to former employees and those that related to current employees and not subject to any condition relating to further service) and those that were **not vested** (relating to current employees and where the entitlement was subject to further service). Only **vested** past service costs were recognised in profit or loss, and unvested benefits were deferred, and spread over remaining service lives.

Chapter Roundup

- ✓ **IAS 19 *Employee benefits*** is a long and complex standard covering both short-term and long-term (post-employment) benefits. The complications arise when dealing with **post-employment benefits**.
- ✓ There are **no specific disclosure requirements for short-term employee benefits** in the Standard.
- ✓ There are **two types of post-employment benefit plan**:
  - Defined contribution plans
  - Defined benefit plans
- ✓ **Defined contribution plans** are simple to account for as the benefits are defined by the contributions made. The contributions for the year should be recognised as an expense in profit or loss and an accrual should be recognised for any unpaid amounts at the year end.
- ✓ **Defined benefit plans** are much more difficult to deal with as the benefits are promised, so they define the contributions to be made. The present value of plan liabilities and the fair value of the plan assets should be recognised as a net pension liability (asset) in the entity's statement of financial position.
- ✓ Future benefits are attributed to services performed by employees using **the projected unit credit method**. **Discount rates** used should be determined by reference to market yields on high-quality fixed-rate corporate bonds.
- ✓ **Net interest cost (income)** should be calculated on the opening plan assets and liabilities.
- ✓ **Actuarial assumptions** made should be unbiased and based on market expectations.
- ✓ **Remeasurement gains and losses** arise due to differences between **the year end valuation of the defined benefit obligation and plan assets** and their **accounting value**. They are to be recognised **other comprehensive income**.
- ✓ You should know how to deal with **past service costs** and **settlements**.

Quick Quiz

1 What are the four categories of employee benefits covered by IAS 19?

2 What is the difference between defined contribution and defined benefit plans?

3 What is a 'constructive obligation' compared to a legal obligation?

4 How should a defined benefit expense be recognised in the statement of profit or loss and other comprehensive income?

5 What causes actuarial gains or losses?

Answers to Quick Quiz

1
- Short-term
- Post-employment
- Other long-term
- Termination

2 See Section 3.1.

3 A constructive obligation exists when the entity has no realistic alternative than to pay employee benefits.

4 P/L: Current service cost + net interest on net defined asset/liability + past service cost + cost of curtailments or settlements.

OCI: Gains and losses on remeasurement of plan assets or obligation.

5 Gains or losses due to changes in actuarial assumptions.

Answers to Questions

3.1 Sick leave

Plyman Co expects to pay an additional 12 days of sick pay as a result of the unused entitlement that has accumulated at 31 December 20X8, ie 1½ days × 8 employees. For the year ended 31 December 20X8, Plyman Co should recognise a liability and corresponding expense equal to 12 days of sick pay.

3.2 Comprehensive

The gain or loss on remeasurement is established as a balancing figure in the calculations, as follows.

It is always useful to set up a working reconciling the assets and obligation:

	Assets *20X2* $'000	*Liabilities* *20X2* $'000
Opening fair value/present value at 1/1/X2	1,402	1,600
Interest (10%)	140	160
Current service cost		150
Contributions received	120	
Benefits paid	(130)	(130)
Past service cost	-	40
	1,532	1,820
Remeasurement gain on plan assets through OCI (balancing figure)	78	–
Remeasurement gain on defined benefit obligation through OCI (balancing figure)	-	(110)
Closing fair value/present value at 31/1/X2	1,610	1,710

In the statement of financial position, the liability that is recognised is calculated as follows.

	20X2 $'000
Present value of plan liabilities	1,710
Market value of plan assets	(1,610)
Net pension liability/(asset) in statement of financial position	100

The following will be recognised in profit or loss for the year:

	20X2 $'000
Current service cost	150
Past service cost	40
Net interest on defined benefit liability (asset) (160 – 140)	20
Expense recognised in profit or loss	210

The following remeasurements will be recognised in other comprehensive income for the year:

	20X2 $'000
Remeasurement gain on plan liabilities	110
Remeasurement gain on plan assets	78
	188

Now try this question from the Exam Question Bank

Number	Level	Marks	Time
Q3	Examination	12	22 mins

SHARE-BASED PAYMENTS

This chapter deals with IFRS 2 on share based payment, a controversial area.

4

topic list	learning outcomes	syllabus references	ability required
1 IFRS 2 *Share based payment*	B1	B1 (vi)	Evaluation

1 IFRS 2 Share based payment 3/12, 5/12, 9/12

Introduction

Transactions whereby entities purchase goods or services from other parties, such as suppliers and employees, by **issuing shares or share options** to those other parties are **increasingly common**.

1.1 Background

Share schemes are a common feature of employee and executive remuneration. In some countries, tax incentives are offered to encourage the use of share-based payment. Companies whose shares or share options are regarded as a valuable 'currency' may also use share-based payment to obtain professional services.

The increasing use of share-based payment raised questions about the accounting treatment of such transactions in company financial statements. Because the granting of share options often involved no initial cost, no expense would be recorded. This led to an **anomaly:** if a company paid its employees in cash, an expense would be recognised in profit or loss, but if the payment took the form of share options, no expense would be recognised. The omission also gave rise to corporate governance concerns.

IFRS 2 Share-based payment was issued to deal with this.

1.1.1 Arguments against recognition of share-based payment in the financial statements

There were a number of arguments against recognition. The IASB has considered and rejected the arguments below.

(a) **No cost therefore no charge**

There is no cost to the entity because the granting of shares or options does not require the entity to sacrifice cash or other assets. Therefore a charge should not be recognised.

This argument is unsound because it ignores the fact that a transaction has occurred. The employees have provided valuable services to the entity in return for valuable shares or options.

(b) **Earnings per share is hit twice**

It is argued that the charge to profit or loss for the employee services consumed reduces the entity's earnings, while at the same time there is an increase in the number of shares issued.

However, the dual impact on earnings per share simply reflects the two economic events that have occurred.

(i) The entity has issued shares or options, thus increasing the denominator of the earnings per share calculation.

(ii) It has also consumed the resources it received for those shares or options, thus reducing the numerator.

(c) **Adverse economic consequences**

It could be argued that entities might be discouraged from introducing or continuing employee share plans if they were required to recognise them on the financial statements. However, if this happened, it might be because the requirement for entities to account properly for employee share plans had revealed the economic consequences of such plans.

A situation where entities are able to obtain and consume resources by issuing valuable shares or options without having to account for such transactions could be perceived as a distortion.

1.2 Objective and scope

IFRS 2 requires an entity to **reflect the effects of share-based payment transactions** in its statement of profit or loss and statement of financial position.

The accounting requirements depend on how the share-based payment transaction is settled: by equity, by cash, or a choice between the two.

(a) **Equity-settled**: The entity receives goods or services in exchange for equity instruments of the entity (including shares or share options)

(b) **Cash-settled**: The entity receives goods or services in exchange for amounts of cash that are based on the price (or value) of the entity's shares or other equity instruments of the entity

(c) **Equity or cash**: Either the entity or the supplier has a **choice** as to whether the entity settles the transaction in cash (or other assets) or by issuing equity instruments

Exam alert

For the purposes of your exam, you only need to know about (a) and (b).

IFRS 2 only applies to share-based transactions for the acquisition of goods and services. It does not apply to other transactions with holders of equity instruments, such as share dividends, purchase of treasury shares, or the issue of additional shares in a rights issue.

Certain transactions are **outside the scope** of the IFRS, such as the issue of equity instruments in exchange for control of another entity in a business combination.

KEY TERMS

SHARE-BASED PAYMENT TRANSACTION A transaction in which the entity receives or acquires goods or services either **as consideration** for its equity instruments or by **incurring liabilities** for amounts based on the price **of the entity's shares or other equity instruments** of the entity.

SHARE-BASED PAYMENT ARRANGEMENT An agreement between the entity and another party (including an employee) to enter into a share-based payment transaction, which thereby entitles the other party to receive cash or other assets of the entity for amounts that are based on the price of the entity's shares or other equity instruments of the entity, or to receive equity instruments of the entity, provided the specified vesting conditions, if any, are met.

EQUITY INSTRUMENT A contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

EQUITY INSTRUMENT GRANTED The right (conditional or unconditional) to an equity instrument of the entity conferred by the entity on another party, under a share-based payment arrangement.

SHARE OPTION A contract that gives the holder the right, but not the obligation, to subscribe to the entity's shares at a fixed or determinable price for a specified period of time.

FAIR VALUE is the amount for which an asset could be exchanged, a liability settled, or an equity instrument granted could be exchanged, between knowledgeable, willing parties in an arm's length transaction**.** (Note that this definition is different from that in IFRS 13 *Fair value measurement,* but the IFRS 2 definition applies.)

INTRINSIC VALUE The difference between the fair value of the shares to which the counterparty has the (conditional or unconditional) right to subscribe or which it has the right to receive, and the price (if any) the other party is (or will be) required to pay for those shares. For example, a share option with an exercise price of $15 on a share with a fair value of $20, has an intrinsic value of $5.

MEASUREMENT DATE The date at which the fair value of the equity instruments granted is measured. For transactions with employees and others providing similar services, the measurement date is grant date.

For transactions with parties other than employees (and those providing similar services), the measurement date is the date the entity obtains the goods or the counterparty renders service.

TO **VEST** means to become an entitlement. Under a share-based payment arrangement, a counterparty's right to receive cash, other assets, or equity instruments of the entity vests upon satisfaction of any specified vesting conditions.

VESTING CONDITIONS The conditions that must be satisfied for the counterparty to become entitled to receive cash, other assets or equity instruments of the entity, under a share-based payment arrangement. Vesting conditions include service conditions, which require the other party to complete a specified period of service, and performance conditions, which require specified performance targets to be met (such as a specified increase in the entity's profit over a specified period of time).

1.3 Recognition: the basic principle

An entity should **recognise goods or services received or acquired in a share-based payment transaction when it obtains the goods or as the services are received.** Goods or services received or acquired in a share-based payment transaction **should be recognised as expenses** unless they qualify for recognition as **assets**. For example, services are normally recognised as expenses (because they are normally rendered immediately), while goods are recognised as assets.

If the goods or services were received or acquired in an **equity-settled** share-based payment transaction the entity should recognise **a corresponding increase in equity** (reserves).

If the goods or services were received or acquired in a **cash-settled** share-based payment transaction the entity should recognise a **liability.**

For example, where an entity grants share options to its employees for their services, the transaction should be recorded as follows:

DEBIT Staff costs

CREDIT Other reserves [within equity] (*if equity-settled*)/ Liability (*if cash-settled*).

Where performance by the counterparty is not immediate, the expense is **spread** over the period until the counterparty becomes entitled to receive the share-based payment (the '**vesting' period**'). For example, employee services where a minimum period of service must be completed before entitlement to the share-based payment.


KEY TERM

VESTING PERIOD The period during which all the specified vesting conditions of a share-based payment arrangement are to be satisfied.

Exam alert

Most share-based payment questions in past exams have focused on share-based payment transactions for employee services, rather than those for the purchase of goods.

1.4 Equity-settled share-based payment transactions

11/10, 3/11, 9/11

1.4.1 Measurement

The issue here is how to measure the 'cost' of the goods and services received and the equity instruments (eg the share options) granted in return.

The general principle in IFRS 2 is that when an entity recognises the goods or services received and the corresponding increase in equity, it should measure these at the **fair value of the goods or services**

received. Where the transaction is with **parties other than employees**, there is a rebuttable presumption that the fair value of the goods or services received can be estimated reliably.

In such cases, the entity should measure the share-based payment **expense using the fair value of the goods or services received**. This is called the **direct method**.

Where the direct method is used, fair value should be measured at the date the entity obtains the goods or the counterparty renders service.

If the fair value of the goods or services received cannot be measured reliably, the entity should measure their value by reference to the **fair value of the equity instruments granted.** This is called the **indirect method**, and is the method often adopted for employee services.

Where the indirect method is used, the fair value of those equity instruments should be measured at **grant date**.


KEY TERM

GRANT DATE The date at which the entity and another party (including an employee) agree to a share-based payment arrangement, being when the entity and the other party have a shared understanding of the terms and conditions of the arrangement. At grant date, the entity confers on the other party (the counterparty) the right to cash, other assets, or equity instruments of the entity, provided the specified vesting conditions, if any, are met. If that agreement is subject to an approval process (for example, by shareholders), grant date is the date when that approval is obtained.

1.4.2 Determining the fair value of equity instruments granted

Where the indirect method is used, the fair value of the equity instruments is based on **market prices** if available, taking into account the terms and conditions upon which those equity instruments were granted.

If market prices are not available, the entity should estimate the fair value of the equity instruments granted using a **valuation technique**. (These are beyond the scope of this exam.)

1.4.3 Transactions in which services are received

If the equity instruments granted **vest immediately** (ie the counterparty is not required to complete a specified period of service before becoming unconditionally entitled to the equity instruments), it is presumed that the services have already been received. The entity should **recognise the services received in full**, with a corresponding increase in equity, **on the grant date**.

If the equity instruments granted **do not vest until the counterparty completes a specified period of service**, the entity should account for those services **as they are rendered** by the counterparty during the vesting period.

For example, if an employee is granted share options on condition that he or she completes three years' service, then the fair value of the share-based payment, determined at the grant date, should be expensed over that three-year vesting period.

Where the share-based payment is equity-settled, the fair value of each equity instrument should be based on the fair value at the grant date. No adjustment should be made to this fair value in subsequent years.

The total fair value to be recognised should be based on the **best available estimate** of the **number of equity instruments expected to vest**. The entity should **revise** that estimate if subsequent information indicates that the number of equity instruments expected to vest differs from previous estimates. On **vesting date**, the entity should revise the estimate to **equal the number of equity instruments that actually vest**.

For example, for share options granted to employees, the entity will estimate the number of employees entitled to exercise their share options. Any changes in the number of employees expected to receive the share options is treated as a change in accounting estimate and is recognised in the period of the change.

Example: equity-settled share-based payment transaction

On 1 January 20X1, an entity grants 100 share options to each of its 400 employees. Each grant is conditional upon the employee working for the entity until 31 December 20X3. The fair value of each share option is $20.

During 20X1, 20 employees leave and the entity estimates that 20% of the employees (ie. 80 employees) will leave during the three year period.

During 20X2 a further 25 employees leave and the entity now estimates that 25% of its employees (ie. 100 employees) will leave during the three year period.

During 20X3 a further 10 employees leave. The share options granted to the remaining employees are vested at the end of 20X3.

Required

Calculate the remuneration expense that will be recognised in respect of the share-based payment transaction for each of the three years, and show the accounting entries required.

Solution

IFRS 2 requires the entity to recognise the remuneration expense, based on the fair value of the share options granted, as the services are received during the three year vesting period.

In 20X1 and 20X2, the entity estimates the number of options expected to vest (by estimating the number of employees likely to leave) and bases the amount that it recognises for the year on this estimate.

In 20X3, it recognises an amount based on the number of options that actually vest. A total of 55 employees left during the three year period and therefore 34,500 options (400 – 55 employees × 100 options) are vested.

The amount recognised as an expense for each of the three years is calculated as follows:

		Cumulative expense at year-end $	*Expense for year* $
20X1	(400 – 80) × 100 × $20 × 1/3	213,333	213,333
20X2	(400 – 100) × 100 × $20 × 2/3	400,000	186,667
20X3	345 × 100 × $20	690,000	290,000

20X1				
DEBIT	Staff costs		$213,333	
CREDIT		Other reserves (within equity)		$213,333
20X2				
DEBIT	Staff costs		$186,667	
CREDIT		Other reserves (within equity)		$186,667
20X3				
DEBIT	Staff costs		$290,000	
CREDIT		Other reserves (within equity)		$290,000

Question 4.1

Share based payment

Learning outcomes B1

An entity grants 100 share options on its $1 shares to each of its 500 employees on 1 January 20X5. Each grant is conditional upon the employee working for the entity over the next three years. The fair value of each share option as at 1 January 20X5 is $15.

On the basis of a weighted average probability, the entity estimates on 1 January that 20% of employees will leave during the three-year period and therefore forfeit their rights to share options.

Required

Show the accounting entries which will be required over the three-year period in the event of the following:

(a) 20 employees leave during 20X5 and the estimate of total employee departures over the three-year period is revised to 15% (75 employees)

(b) 22 employees leave during 20X6 and the estimate of total employee departures over the three-year period is revised to 12% (60 employees)

(c) 15 employees leave during 20X7, so a total of 57 employees left and forfeited their rights to share options. A total of 44,300 share options (443 employees × 100 options) are vested at the end of 20X7.

1.5 Cash-settled share-based payment transactions 5/10, 5/11

Examples of this type of transaction include:

(a) **Share appreciation rights** granted to employees: the employees become entitled to a future cash payment (rather than an equity instrument), based on the increase in the entity's share price from a specified level over a specified period of time or

(b) An entity might grant to its employees a right to receive a future cash payment by granting to them a **right to shares that are redeemable**

Again, as we have seen for the equity-settled share-based payment transactions, the entity should measure the share-based payment expense using the method that provides the most reliable information.

(a) If the fair value of the goods or services received **can be measured** reliably, the **direct method** is used. The share-based payment is measured at the fair value of the goods or services received.

(b) If the fair value of the goods or services received **cannot be measured** reliably, the **indirect method** is used. The share-based payment is measured at the fair value of the equity instruments granted.

Note, however: where the indirect method is used in measuring cash-settled share-based payment transactions, the entity should **remeasure** the fair value of the liability **at each reporting date**, until the liability is settled. This differs from the treatment of equity-settled share-based payments which we saw above. Any changes in fair value are recognised in profit or loss, up to the date of settlement.

The entity should recognise the services received, and a liability to pay for those services, **as the employees render service.** For example, if share appreciation rights do not vest until the employees have completed a specified period of service, the entity should recognise the services received and the related liability, over that period.

Exam alert

The May 2010 exam included a 5 mark part question on share appreciation rights.

Example: cash-settled share-based payment transaction

On 1 January 20X4 an entity grants 100 cash share appreciation rights (SARs) to each of its 500 employees on condition that the employees remain in its employ for the next two years. The SARs vest on 31 December 20X5 and may be exercised at any time up to 31 December 20X6. The fair value of each SAR at the grant date is $7.40.

Year ended	Leavers	No. of employees exercising rights	Outstanding SARs	Estimated further leavers	Fair value of SARs	Intrinsic value (ie cash paid)
					$	$
31 December 20X4	50	–	450	60	8.00	
31 December 20X5	50	100	300	–	8.50	8.10
31 December 20X6	–	300	–	–	–	9.00

Required

Show the expense and liability which will appear in the financial statements in each of the three years.

Solution

For the three years to the vesting date of 31 December 20X6, the expense is based on the entity's estimate of the number of SARs that will actually vest (as for an equity-settled transaction). However, the fair value of the liability is **re-measured** at each year-end.

	$
Year ended 31 December 20X4	
Liability c/d and P/L expense ((500 – 110) × 100 × $8.00 × ½)	156,000

	$
Year ended 31 December 20X5	
Liability b/d	156,000
∴ Profit or loss expense	180,000
Less: cash paid on exercise of SARs by employees (100 × 100 × $8.10)	(81,000)
Liability c/d (300 × 100 × $8.50)	255,000

	$
Year ended 31 December 20X6	
Liability b/d	255,000
∴ Profit or loss expense	15,000
Less: cash paid on exercise of SARs by employees (300 × 100 × $9.00)	(270,000)
Liability c/d	-

1.6 Choice between settling in cash or in equity

Where either the entity or the other party has a choice of settling in cash or by issuing equity instruments, the accounting treatment depends upon whether the entity has incurred a liability to settle in cash (or other assets).

If the entity has incurred a liability to settle in cash or other assets, it should account for the transaction as a cash-settled share-based payment transaction.

If no such liability has been incurred, the entity should account for the transaction as an equity-settled share-based payment transaction.

Section summary

Share-based payment transactions should be recognised in the financial statements. You need to understand and be able to advise on:

- Recognition
- Measurement
- Disclosure

of both equity settled and cash settled transactions.

Chapter Roundup

✓ **Share-based payment** transactions should be recognised in the financial statements. You need to understand and be able to advise on:

- Recognition
- Measurement
- Disclosure

of both equity settled and cash settled transactions.

Quick Quiz

1 What is a cash-settled share based payment transaction?

2 What does grant date mean?

3 If an entity has entered into an equity settled share-based payment transaction, what should it recognise in its financial statements?

4 Where an entity has granted share options to its employees in return for services, how is the transaction measured?

Answers to Quick Quiz

1 A transaction in which the entity receives goods or services in exchange for amounts of cash that are based on the price (or value) of the entity's shares or other equity instruments of the entity.

2 The date at which the entity and another party (including an employee) agree to a share based payment arrangement, being when the entity and the other party have a shared understanding of the terms and conditions of the arrangement.

3 The goods or services received and a corresponding increase in equity.

4 By reference to the fair value of the equity instruments granted, measured at grant date.

Answers to Questions

4.1 Share based payment

20X5				$
Equity c/d and P/L expense ((500 – 75) × 100 × $15 × 1/3)				212,500
DEBIT	Staff costs	$212,500		
CREDIT	Other reserves (within equity)		$212,500	

20X6				$
Equity b/d				212,500
∴ Profit or loss expense				227,500
Equity c/d ((500 – 60) × 100 × $15 × 2/3) =				440,000
DEBIT	Expenses	$227,500		
CREDIT	Other reserves (within equity)		$227,500	

20X7				$
Equity b/d				440,000
∴ Profit or loss expense				224,500
Equity c/d (443 × 100 × $15) =				664,500
DEBIT	Expenses	$224,500		
CREDIT	Other reserves (within equity)		$224,500	

Now try this question from the Exam Question Bank

Number	Level	Marks	Time
Q4	Introductory	10	18 mins

ASSET VALUATION AND CHANGING PRICES

Some companies publish **current cost information** (particularly the utility companies). It is important, therefore to have a background knowledge of the way current cost information differs from historic cost.

5

topic list	learning outcomes	syllabus references	ability required
1 Profit, capital maintenance and asset valuation	B(1)	B(i)	Evaluation
2 Changes in price levels	B(1)	B(ii)	Evaluation
3 Hyperinflation	B(1)	B(ii)	Evaluation
4 Fair value measurement	B(1)	B(ii)	Evaluation

1 Profit, capital maintenance and asset valuation

Introduction

A useful starting point in the definition of profit is the work of economists, most notably Sir John Hicks, on the meaning of personal income.

1.1 Introduction

There are three main factors affecting any system of accounting.

(a) **Asset valuation basis**: Historical cost or current cost (HCA)
(b) **Capital maintenance concept**: Financial or operating
(c) **Unit of measurement**: Nominal or current purchasing power (stabilised) (CPP)

These factors may be combined as follows:

	Assets valuation	Capital maintenance concept	Units of measurement	System of accounting
1	Historical cost	Financial	Nominal	HCA
2	Historical cost	Financial	CPP (stable monetary unit)	CPP
3	Current cost	Operating	Nominal	CCA
4	Current cost	Operating	CPP	'Real' CCA

In this chapter, we will discuss each of the different approaches to asset valuation, capital maintenance, and unit of measurement. Come back to the table above after you have studied these approaches and use it as a summary.

1.2 Capital maintenance

There are different views of capital.

1.2.1 Financial capital

In the financial capital view, capital is seen as a **fund attributable to shareholders**.

Focusing on the equity ownership of the entity is often referred to as the **proprietary concept of capital**. The objective of financial capital maintenance is to **maintain shareholders' wealth**, either in nominal terms or in real terms.

	$
Financial capital is represented by:	
Share capital	X
Reserves	X
	X

Does this look familiar? This is because this view of capital is adopted in IFRS financial statements.

1.2.2 Operating capital

Under this concept, capital is looked at as the capacity to maintain physical operating capital.

Alternatively referred to as the **physical capacity capital maintenance concept**, or the **entity concept**, the objective of operating capital maintenance is to maintain the **operating capacity of the business**. This requires specific price changes to be incorporated.

	$
Physical operating capital is represented by:	
Non-current assets	X
Inventories	X
Monetary working capital	X
	X

1.3 The meaning of profit

Hicks' conclusions on personal income can be adapted to the measurement of a company's profit. Note that in this chapter the term 'income' is used in preference to 'profit' in order to compare economic and accounting theories. 'Income' is not intended here to mean 'revenue'.

Hicks defined income (in *Value and capital*, 1946).


KEY TERM

INCOME: 'the maximum value which an individual can consume during a week and still expect to be as well off at the end of the week as he was at the beginning.'

When a UK committee (the Sandilands Committee) reported in 1975 on the problems of accounting during periods of inflation, they adapted Hicks' definition to provide a definition of accounting profit:


KEY TERM

'A company's **PROFIT** for the year is the maximum value which the company can distribute during the year, and still expect to be as well off at the end of the year as it was at the beginning.'

In other words, if an **entity** can **maintain its opening capital** (the measure of 'well-offness' in the definition above), any excess value created over and above this is profit. This means, assuming there is no new capital injection:

Profit =	Capital at end of year	X
	Capital at beginning of year	(X)
		X

Needless to say, what 'profit' is exactly will vary depending on the capital maintenance concept adopted.

1.4 Statement of financial position view

This view of profit corresponds with a view of the **statement of financial position as the primary accounting statement**. This is because once the opening statement of financial position and the closing statement of financial position for a period have been drawn up, profit emerges as merely a balancing figure between the capital values shown by the two statements of financial position. (Of course, adjustments would need to be made for any capital injected or withdrawn during the period.)

1.5 Statement of profit or loss and other comprehensive income

Some regard the **statement of profit or loss and other comprehensive income as the primary accounting statement**. To them, **matching is the key**. In this view, it is the statement of financial position which is residual, in that it is merely a collection of unallocated debits and credits.

1.6 Inflation accounting 9/11

We can use historical cost maintenance concepts to show 'profits' and statement of financial position values, but if the 'profit' gained by holding assets over time is paid out by way of dividend, the company's operating capacity will decline.

To prevent this situation occurring we could:

(a) Alter financial statements for the general rate of inflation to reflect the decreasing purchasing power of money

(b) Alter the financial statements to reflect specific rates of inflation on the business assets: this is the operating capital maintenance concept.

We will look at inflation accounting in more detail in section 2.5 below.

Section summary

Profit can be viewed as a measure of the increase in an entity's capital over the duration of an accounting period.

The **measurement of profit** depends on the concept of **capital maintenance**.

2 Changes in price levels

Introduction

Historical cost accounting (HCA) is the traditional form of Western accounting, modified in some instances by revaluations of certain assets. It is objective, but it has its disadvantages.

2.1 Main characteristics of HCA

(a) All transactions are recorded at their **historical cost**. When money is paid over, this money value will be recorded in the books of the business. The final financial statements (statement of financial position, statement of profit or loss and other comprehensive income, and statement of cash flows) will reflect the transactions at historical cost.

(b) The transactions thus recorded are *matched*, so that the income generated by the company is 'matched' against the costs involved in getting that income.

There is a common **modification of HCA** in that some non-current assets can be **revalued** to a current cost figure. Any holding gain or loss (ie. the fact that something is worth more, or costs more, over time simply due to price increases) must be taken to a revaluation reserve. Once the asset is disposed of, this unrealised holding gain can be released.

We can now look at HCA in terms of **capital maintenance**, which allows us to break down HCA profits into different types of gains and losses.

Profit can be measured as the difference between how wealthy an entity is at the beginning and at the end of an accounting period. This wealth can be expressed in terms of the equity (capital and reserves) as shown in its opening and closing statements of financial position. A business which maintains its capital unchanged during an accounting period can be said to have 'broken even'. Once capital has been maintained, anything achieved in excess represents profit. This is known as **financial capital maintenance**.

For this analysis to be of any use, we must be able to draw up a statement of financial position at the beginning and at the end of a period, so as to place a value on the opening and closing capital. There are particular difficulties in doing this during a period of rising prices.

In conventional historical cost accounts, assets are stated in the statement of financial position at the amount it cost to acquire them (less any amounts written off in respect of depreciation or impairment). Capital is simply the difference between assets and liabilities. If prices are rising, it is possible for an entity to show a profit in its historical cost accounts despite having identical physical assets and owing identical liabilities at the beginning and end of its accounting period.

For example, consider the following opening and closing statements of financial position.

	Opening $	*Closing* $
Inventory (100 items at cost)	500	600
Other net assets	1,000	1,000
Capital	1,500	1,600

Assuming that no new capital has been introduced during the year, and no capital has been distributed as dividends, the profit shown in historical cost accounts would be $100, being the excess of closing capital

over opening capital. And yet, in physical terms, the entity is no better off: it still has 100 units of inventory (which cost $5 each at the beginning of the period, but $6 each at the end) and its other net assets are identical. The **'profit' earned has merely enabled the entity to keep pace with inflation**.

An alternative to the concept of capital maintenance based on historical costs is to express capital in **physical terms**. On this basis, no profit would be recognised in the example above because the physical substance of the entity is unchanged over the accounting period. The entity's **operating capacity** remains unchanged. Capital is maintained if at the end of the period the entity is in a position to achieve the **same physical output** as it was at the beginning of the period.

2.2 Criticisms of historical cost accounting

2.2.1 Overstatement of profit

HCA shows current revenues, but out of date costs (depreciation, cost of sales where the cost of products and materials are based on historical cost). This causes the profit reported to be overstated.

2.2.2 Non-current asset values are unrealistic

The most striking example here is **property**. If non-current assets are retained in the books at their historical cost, **unrealised holding gains** are not recognised. This means that the total holding gain, if any, will be brought into account during the year in which the asset is realised, rather than spread over the period during which it was owned.

2.2.3 Unreliable investors' ratios

Because of the two issues above, giving us distorted profits and asset values, the entity's return on assets and capital employed are also distorted. Based on this, there is a risk that the entity appears more attractive to investors than it would otherwise do.

2.2.4 Depreciation is inadequate to finance the replacement of non-current assets

This criticism is generally well understood and you will appreciate that what is important is not the replacement of one asset by an identical new one (something that rarely happens), but the replacement of the **operating capability** represented by the old asset.

2.2.5 Holding gains on inventories are not measured separately from operating profits

During a period of high inflation the **monetary value of inventories held may increase significantly** while they are being processed. The conventions of historical cost accounting lead to the **realised part of this holding gain** (known as *inventory appreciation*) being **included** in **profit** for the year.

This problem can be illustrated using a simple example. At the beginning of the year, an entity has 100 units of inventory and no other assets. Its trading account for the year is shown below.

TRADING ACCOUNT

	Units	$		Units	$
Opening inventory	100	200	Sales (made 31 December)	100	500
Purchases (made 31 December)	100	400			
	200	600			
Closing inventory (FIFO basis)	100	400			
	100	200			
Gross profit	–	300			
	100	500		100	500

Apparently, the entity has made a gross profit of $300. But, at the beginning of the year the entity owned 100 units of inventory and at the end of the year it owned 100 units of inventory and $100 (sales $500, purchases $400). From this it would seem that a profit of $100 is more reasonable. The remaining $200 is inventory appreciation arising as the purchase price increased from $2 to $4.

This criticism can be overcome by using a **capital maintenance** concept based on **physical units** rather than monetary values.

2.2.6 Gains/losses on holdings of net monetary items are not shown

In periods of inflation, the **purchasing power**, and thus the value, of money **falls**. As a result, gains and losses arise from the impact of inflation. Savers lose because the purchasing power of their savings is eroded, while borrowers gain because they still owe the same nominal amount while their earnings have risen due to inflation. This is not reflected in traditional HCA financial statements.

2.2.7 Comparisons over time are unrealistic

As comparative figures from prior years are not restated for the effects of inflation, this may tend to an **exaggeration of growth**. For example, if an entity's profit in 1995 was $100,000 and in 2013 $500,000, a shareholder's initial reaction might be that the entity had done rather well. If, however, he then realised that with $100,000 in 1995 he could buy exactly the same goods as with $500,000 in 2013, the apparent growth would seem less impressive.

2.2.8 Alternatives to HCA

The points mentioned above have demonstrated some of the accounting problems which arise in times of severe and prolonged inflation. Of the various possible systems of accounting for price changes, most fall into one of three categories as follows.

(a) General price changes bases and in particular, **current purchasing power** (CPP).

(b) **Current value bases**. The basic principles of all these are:

  (i) To show statement of financial position items at some form of current value rather than historical cost

  (ii) To compute profits by matching the current value of costs at the date of consumption against revenue

  The current value of an item will normally be based on replacement cost, net realisable value or economic value.

(c) A **combination** of these two systems: suggestions of this type have been put forward by many writers.

2.3 Why modified historical cost accounting is still used

It must seem strange, given the criticisms levelled at it, that modified HCA is still in such widespread use. There are various reasons for this, not the least of which is **resistance to change** in the conservative accounting profession.

Modified historical cost financial statements are **easy** to prepare, easy to read and easy to understand. While they do not reflect current values, the revaluation of non current assets is seen as one of the most important items requiring such an adjustment, and therefore the value of the financial statements is improved enormously by such revaluations taking place.

In periods of **low inflation**, historical cost financial statements are seen as a reasonable reflection on the reality of the given situation.

Exam alert

A question could ask for a comparison between historical cost and current value accounting.

2.4 Current cost accounting (CCA)

The current value of an asset to a business can be measured in various ways. We look at two of them here: entry value, and exit value.

2.4.1 Entry values

Under this concept, **non-monetary assets** are converted to current replacement cost.

CIMA's Official Terminology defines **replacement cost** as 'the price at which identical goods or capital equipment could be purchased at the date of valuation'.

In times of rising prices, the increase in replacement cost over historical cost results in a 'holding gain', i.e. an asset is worth more simply because it would now cost more to replace.

Advantages	Disadvantages
It ensures operating capital maintenance by recognising operating profit.	It is based on the historical cost convention.
It separates operational gains from holding gains, so we can distinguish gains under the control of management.	Replacement costs may not always be available.
It produces a realistic value of capital employed.	It is subjective.

2.4.2 Exit values

Using exit values, income is determined as closing capital valued at exit price less opening capital at exit price. Exit prices are the amounts at which **non-monetary assets** could be sold in an orderly realisation.

Advantages	Disadvantages
It is based on the concept of **opportunity cost**.	It is not based upon the **going concern concept**.
Most people **understand** realisable values.	The valuation of assets is **subjective**.
It **shows creditors** the amounts available on a winding up.	The assumption of **orderly realisation** of assets in their existing state may be misleading.
	It **does not ensure operating capability**.

2.4.3 CCA concept

Current cost accounting (CCA) reflects an approach to capital maintenance based on maintaining the **operating capability** of a business, and takes into account entry and exit values.

The value of assets consumed or sold, and the value of assets in the statement of financial position should be stated at their **value to the business** (also known as 'deprival value').

Deprival value is an important concept, which you may find rather difficult to understand at first, and you should read the following explanation carefully.

KEY TERM

The DEPRIVAL VALUE 'of an asset is the loss which a business entity would suffer if it were deprived of the use of the asset.

(a) A basic assumption in CCA is that 'capital maintenance' should mean maintenance of the 'business substance' or 'operating capability' of the business entity. As we have seen already, it is generally

accepted that profit is earned only after a sufficient amount has been charged against sales to ensure that the capital of the business is maintained. In CCA, a **physical** rather than financial definition of capital is used: capital maintenance is measured by the ability of the business entity to keep up the same level of operating capability.

(b) 'Value to the business' is the required method of valuation in current cost accounting, because it reflects the extra funds which would be required to maintain the operating capability of the business entity if it suddenly lost the use of an asset.

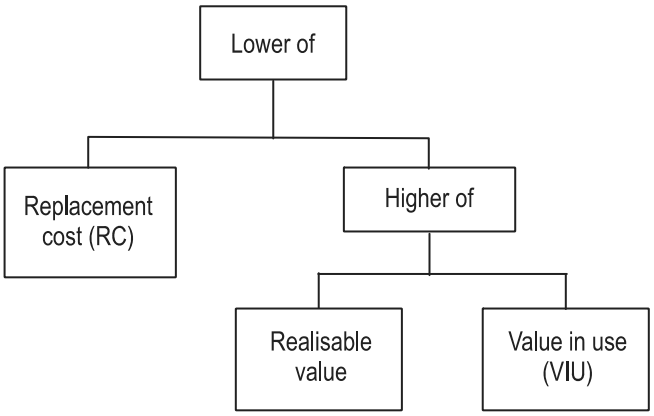
Value to the business, or deprival value, can be any of the following values.

(a) **Replacement cost** (RC): In the case of non-current assets, it is assumed that the replacement cost of an asset would be its net replacement cost (NRC), its gross replacement cost minus an appropriate provision for depreciation to reflect the amount of its life already 'used up'.

(b) **Net realisable value** (NRV): What the asset could be sold for, net of any disposal costs.

(c) **Value in use** (VIU) or economic value: What the existing asset will be worth to the company over the rest of its useful life.

The diagram below summarises how deprival value is normally determined.



If the asset is worth replacing, its deprival value will always be net replacement cost.

If the asset is not worth replacing, it might have been disposed of straight away, or else it might have been kept in operation until the end of its useful life. Where the asset is not worth replacing, the deprival value will be NRV or EV.

However, there are many assets which will not be replaced either:

(a) Because the asset is **technologically obsolete**, and has been (or will be) superseded by more modern equipment

(b) Because the business is **changing the nature of its operations** and will not want to continue in the same line of business once the asset has been used up

Such assets, even though there are reasons not to replace them, would still be valued (usually) at net replacement cost, because this 'deprival value' still provides an estimate of the **operating capability** of the company.

2.4.4 CCA profits and deprival value

The deprival value of assets is reflected in the CCA statement of profit or loss and other comprehensive income by the following means.

(a) **Depreciation** is charged on non-current assets on the basis of **gross replacement cost** of the asset (where RC is the deprival value).

(b) Where **NRV or VIU** is the deprival value, the charge against CCA profits will be the **gain/loss in the value of the asset** during the accounting period; ie from its previous statement of financial position value to its current NRV or VIU.

(c) **Cost of sales** are charged at the **replacement cost** of goods sold.
Thus if an item of inventory cost $15 to produce, and sells for $20, by which time its replacement cost has risen to $17, the CCA profit would be $3.

	$
Sales	20
Less replacement cost of goods sold	17
Current cost profit	3

2.4.5 Current cost adjustments to historical cost profit

In current cost accounting, profit is calculated as follows

	$
Historical cost profit	X
Less: current cost operating adjustments	(X)
Current cost profit	X

The holding gains, both realised and unrealised, are excluded from current cost profit. The double entry for the debits in the current cost statement of profit or loss and other comprehensive income is to credit each operating adjustment to a non-distributable current cost reserve.

2.4.6 The current cost statement of profit or loss and other comprehensive income

The format of the current cost statement of profit or loss and other comprehensive income would show the following information, although not necessarily in the order given.

	$	$
Historical cost profit (before interest and taxation)		X
Current cost operating adjustments		
Cost of sales adjustment (COSA)	(X)	
Monetary working capital adjustment (loss or gain) (MWCA)	(X) or X	
Depreciation adjustment	(X)	
		(X)
Current cost operating profit (before interest and taxation)		X
Less interest payable and receivable		(X)
Add gearing adjustment		X
Current cost profit attributable to shareholders		X
Less taxation		(X)
Current cost profit for the year		X

2.4.7 Cost of sales adjustment (COSA)

The COSA is necessary to **eliminate realised holding gains** on inventory. It represents the difference between **the replacement cost and the historical cost of goods sold**.

The exclusion of holding gains from CC profit is a necessary consequence of the need to maintain operating capability. The COSA represents that portion of the HC profit which must be consumed in replacing the inventory item sold so that trading can continue. Where practical difficulties arise in estimating replacement cost, a simple indexing system can be used.

Thus, if an item of inventory cost $15 to produce, and sells for $20, by which time its replacement cost has risen to $17, the CCA adjustment would be $2.

	$
Sales	20
Historical cost of sales	(15)
Historical cost profit	5
Cost of sales adjustment (17 – 15)	(2)
Current cost profit	3

2.4.8 Depreciation adjustment

The depreciation adjustment is the **difference between the depreciation charge on the gross replacement cost of the assets and the historical cost depreciation**. This is (as with the COSA) a realised holding gain which is excluded from the CC profit. Where comparison is made with a different asset for the purposes of calculating replacement cost (because of the obsolescence of the old asset), then allowance must be made for different useful lives and different production capabilities.

2.4.9 Monetary working capital adjustment (MWCA)

Where a company gives or takes credit for the sale or purchase of goods, the goods are paid for at the **end** of the credit period, at the replacement cost as at the **beginning** of the credit period. If a company measures profit as the excess of revenue over cost:

(a) **Outstanding payables** protect the company to some extent from **price changes** because the company lags behind current prices in its payment

(b) **Outstanding receivables**, in contrast, would be a **burden on profits** in a period of rising prices because sales receipts will always relate to previous months' sales at a lower price/cost/profit level

The MWCA can therefore be either a gain or a loss. An adjustment would be required to record the effect of price changes on movement in monetary working capital (trade receivables less trade payables).

2.4.10 Gearing adjustment

If the operating net assets of the business (inventories, non-current assets and monetary working capital) are financed by **external creditors**, gearing adjustments to the other adjustments discussed above would be required.

The reason for the gearing adjustments is that since the amount owed to these creditors is fixed in monetary terms, and does not rise with inflation, it follows that they are **financing some part of the holding gains** represented by COSA, depreciation adjustment and MWCA. In calculating the amount of current cost profit earned by the shareholders, it is therefore inappropriate to deduct the *whole* of these adjustments from historical cost profit. The proportion of the COSA, depreciation and MWCA adjustments that are financed by debt rather than equity therefore should be added back to profit.

2.4.11 The current cost statement of financial position

In the current cost statement of financial position:

- **Assets** will be valued at their '**value to the business**'.
- **Liabilities** will be valued at their **monetary amount**.
- There will be a current cost reserve to reflect the revaluation surpluses.

2.4.12 Restatements in the statement of financial position

Non monetary items in the statement of financial position are restated to current cost.

Monetary items would already be stated at current cost. Therefore, they do not need to be restated.

Example: current cost accounts

At the beginning of a period, Arthur Smith Co has the following statement of financial position.

	$
Assets	
Non-current asset (newly acquired)	10,000
Inventories (newly acquired)	2,000
	12,000

Capital	
Equity	8,000
Loan stock (10% interest)	4,000
	12,000

The company gearing is 33%, in terms of both HC and CCA. During the period, sales of goods amounted to $15,000, the replacement cost of sales was $13,200 and the historical cost of sales was $12,000. Closing inventories, at replacement cost, were $4,600 and at HC were $4,400. Depreciation is provided for at 10% straight line, and at the end of the period the non-current assets had a gross replacement cost of $11,000. The HC financial statements were as follows.

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

	$
Sales	15,000
Less cost of sales	12,000
	3,000
Depreciation	1,000
Profit before interest	2,000
Interest	400
Profit	1,600

CLOSING STATEMENT OF FINANCIAL POSITION

	$
Non-current asset at cost less depreciation	9,000
Inventories	4,400
Cash	200
	13,600
Equity	9,600
Loan stock	4,000
	13,600

Taxation is ignored.

Required

Prepare workings for the CCA financial statements. (Depreciation for the period will be based on the end of year value of the non-current asset. All sales and purchases were for cash.)

Solution

The COSA is ($13,200 – $12,000) = $1,200
The depreciation adjustment is (($11,000 × 10%) – $1,000) = $100

The MWCA is nil (there are no payables and receivables).

Note. The small cash balance in the closing statement of financial position might be regarded as necessary for business purposes and therefore taken up in the MWCA as monetary working capital. In this example, we will treat the $200 as a cash surplus.

	$	$
Historical cost profit (before interest)		2,000
Current cost adjustments		
COSA	1,200	
MWCA	0	
Depreciation	100	
		1,300
Current cost operating profit		700

The gearing adjustment is calculated by multiplying the three current cost adjustments (here $1,300) by the gearing proportion (by the proportion of the gains which is financed by borrowing and which therefore provides additional profits for equity, since the real value of the borrowing is declining in a period of rising prices).

The gearing proportion is the ratio:

$$\frac{\text{Long - term debt}}{\text{Long - term debt + equity}}$$

As you will see in more detail in Chapter 14, we can think of a company as consisting of non-current assets and net current assets (ie working capital, which is current assets minus current liabilities). These are financed partly by net borrowings and partly by equity.

Average figures are taken, as they are more representative than end of year figures.

	$
Opening figures	
Long-term debt (loan stock)	4,000
Equity	8,000
Equity plus long-term debt	12,000

Closing figures: since cash is here regarded as a surplus amount, the company is losing value during a period of inflation by holding cash – just as it is gaining by having fixed loans. If cash is not included in MWC, it is:

(a) Deducted from long-term debt
(b) Excluded from net operating assets

(Net operating assets consist of non-current assets, long-term trade investments, inventories and monetary working capital.)

The closing figures are therefore as follows.

	$	$
Non-current assets (at net replacement cost $11,000 – $1,100)		9,900
Inventories (at replacement cost)		4,600
Monetary working capital		0
Net operating assets (equals equity + long-term debt)		14,500
Less: Long-term debt	4,000	
Surplus cash	(200)	
		3,800
Therefore equity =		10,700

Average figures	*Opening*	*Closing*	*Average*
Long-term debt	$4,000	$3,800	$3,900
Net operating assets (equals equity + long-term debt)	$12,000	$14,500	$13,250

The gearing proportion is $\frac{3,900}{13,250} \times 100\% = 29.43\%$

Exam alert

The above example is more complicated than you would meet in the exam. The full workings are shown for illustrative purposes.

2.4.13 The advantages and disadvantages of current cost accounting

Advantages

(a) By excluding holding gains from profit, CCA can be used to indicate whether the dividends paid to shareholders will **reduce the operating capability** of the business.

(b) Assets are valued after management has considered the **opportunity cost** of holding them, and the expected benefits from their future use. CCA is therefore a useful guide for management in deciding whether to hold or sell assets.

(c) It is **relevant** to the needs of information users in:

(i) Assessing the stability of the business entity

(ii) Assessing the vulnerability of the business (eg to a takeover), or the liquidity of the business

(iii) Evaluating the performance of management in maintaining and increasing the business substance

(iv) Judging future prospects

(d) It can be **implemented fairly easily** in practice, by making simple adjustments to the historical cost accounting profits. A current cost statement of financial position can also be prepared with reasonable simplicity.

Disadvantages

(a) Valuations of VIU or NRV are inherently **subjective**.

(b) There are several problems to be overcome in deciding how to provide an **estimate of replacement** costs for non-current assets.

(i) While depreciation based on the historical cost of an asset can be viewed as a means of spreading the cost of the asset over its estimated life, depreciation based on replacement costs does not conform to this traditional accounting view.

(ii) Depreciation based on replacement costs would appear to be a means of providing that sufficient funds are set aside in the business to ensure that the asset can be replaced at the end of its life. But if it is not certain what technological advances might be in the next few years and how the type of assets required might change between the current time and the estimated time of replacement, it is difficult to argue that depreciation based on today's costs is a valid way of providing for the eventual physical replacement of the asset.

(iii) It may be argued that depreciation based on historical cost is more accurate than replacement cost depreciation, because the historical cost is known, whereas replacement cost is simply an estimate. However, replacement costs are re-assessed each year, so that inaccuracies in the estimates in one year can be rectified in the next year.

(c) The mixed value approach to valuation means that some assets will be valued at replacement cost, but others will be valued at NRV or VIU. It is arguable that the **total assets** will, therefore, have an **aggregate value** which is **not particularly meaningful** because of this mixture of different concepts.

(d) The **MWCA and GA calculations are demanding**, and people have different ideas of what belongs in them and the indices to use. So, there is a **lack of comparability** between different companies adopting current cost accounting.

2.5 Current purchasing power (CPP)

2.5.1 Capital maintenance in times of inflation

As we saw at the start of this chapter, **profit** can be measured as the **difference between how wealthy a company is at the beginning and at the end of an accounting period.**

For this analysis to be of any use, we must be able to draw up a company's statement of financial position at the beginning and at the end of a period, so as to place a value on the opening and closing capital. There are particular difficulties in doing this during a **period of changing prices**.

In conventional historical cost financial statements, assets are stated in the statement of financial position at the amount it cost to acquire them (less any amounts written off in respect of depreciation or impairment in value). Capital is simply the **difference between assets and liabilities**.

If prices are rising, it is possible for a company to show a profit in its historical cost accounts despite having identical physical assets and owing identical liabilities at the beginning and end of its accounting period.

For example, consider the following opening and closing statements of financial position of a company.

	Opening $	*Closing* $
Inventory (100 items at cost)	500	600
Other net assets	1,000	1,000
Capital	1,500	1,600

Assuming that no new capital has been introduced during the year, and no capital has been distributed as dividends, the profit shown in historical cost accounts would be $100, being the excess of closing capital over opening capital. And yet, in physical terms, the company is no better off: it still has 100 units of inventory (which cost $5 each at the beginning of the period, but $6 each at the end) and its other net assets are identical. The 'profit' earned has merely enabled the company to keep pace with inflation.

2.5.2 The unit of measurement

Another way to tackle the problems of capital maintenance in times of rising prices is to look at the **unit of measurement** in which accounting values are expressed.

It is an axiom of conventional accounting, as it has developed over the years, that value should be measured in terms of money. It is also **implicitly assumed** that **money values are stable**, so that $1 at the start of the financial year has the same value as $1 at the end of that year. But when **prices are rising**, this assumption is invalid: **$1 at the end of the year has less value (less purchasing power) than it had one year previously**.

This leads to problems when aggregating amounts which have arisen at different times. For example, a company's non current assets may include items bought at different times over a period of many years. They will each have been recorded in $CPP, but the value of $1 will have varied over the period. In effect, the **non current asset figure in a historical cost statement of financial position is an aggregate of a number of items expressed in different units**. It could be argued that such a figure is **meaningless**.

Faced with this argument, one possibility would be to re-state all accounts items in terms of a stable monetary unit. There would be difficulties in practice, but in theory there is no reason why a stable unit should not be devised. In this section, we will look at a system of accounting called **current purchasing power accounting** (CPP) based on precisely this idea.

2.5.3 The CPP concept

The idea behind CPP is that some or all of the accounts items are **restated** for changes in **current price level** in terms of a stable monetary unit – the $CPP.

Changes in purchasing power are based on the general level of inflation using the general prices index (GPI).

CPP measures profits as the **increase in the current purchasing power of equity**. Profits are therefore stated after allowing for the declining purchasing power of money due to price inflation.

2.5.4 Specific and general price changes

We can identify two different types of price inflation.

(a) There is **specific price inflation**, which measures price changes over time for a specific asset or group of assets.

(b) There is **general price inflation**, which is the average rate of inflation, which reduces the general purchasing power of money.

Specific price inflation is not always consistent with general price inflation. For example, if the replacement cost of a machine on 1 January 20X2 was $5,000, and the general rate of inflation in 20X2 was 8%, we would not necessarily expect the replacement cost of the machine at 31 December 20X2 to be $5,000 plus 8% = $5,400. In fact, it is conceivable that, in spite of general inflation, the replacement cost of the machinery might have gone down.

Current cost accounting can counter the problems of specific price inflation. However, the capital maintenance concepts that underlie current cost accounting do not allow for the maintenance of real value in money terms.

Current purchasing power (CPP) accounting is based on a different concept of capital maintenance.


KEY TERM

CPP measures profits as the **increase in the current purchasing power of equity**. Profits are therefore stated after allowing for the declining purchasing power of money due to price inflation.

When applied to historical cost accounting, CPP is a system of accounting which makes adjustments to income and capital values to allow for the **general rate of price inflation**.

2.5.5 The principles and procedures of CPP accounting

In CPP accounting, profit is measured after allowing for general price changes. It is a fundamental idea of CPP that capital should be maintained in terms of the **same monetary purchasing power**, so that:

$$P_{CPP} = D_{CPP} + (E_{t\,(CPP)} - E_{(t-1)CPP})$$

where P_{CPP} is the CPP accounting profit

D_{CPP} is distributions to shareholders, re-stated in current purchasing power terms

$E_{t(CPP)}$ is the total value of assets attributable to the owners of the business entity at the end of the accounting period, restated in current purchasing power terms

$E_{(t-1)CPP}$ is the total value of the owners' equity at the beginning of the accounting period, restated in current purchasing power terms at the end of the of the accounting period.

A CPP $ relates to the value of money on the last day of the accounting period.

Profit in CPP accounting is therefore measured after allowing for maintenance of equity capital. To the extent that a company is financed by loans, there is no requirement to allow for the maintenance of the purchasing power of the non current liabilities. Indeed, as we shall see, the equity of a business can profit from the loss in the purchasing power value of loans.

2.5.6 Monetary and non-monetary items


KEY TERM

A MONETARY ITEM is an asset or liability whose value is **fixed by contract or statute** in terms of $s, regardless of changes in general price levels and the purchasing power of the currency.

The main examples of monetary items are cash, receivables, payables and loan capital.


KEY TERM

A NON-MONETARY ITEM is an asset or liability whose value is **not fixed by contract or statute**.

These include property, plant and equipment and inventory.

In CPP accounting, the monetary items held must be looked at carefully.

(a) If a company **borrows money in a period of inflation**, the amount of the debt will remain fixed (by law) so that when the debt is eventually paid, it will be paid in $s of a lower purchasing power.

For example, suppose a company borrows $2,000 on 1 January 20X5 and repays the loan on 1 January 20X9. In a period of inflation, the purchasing power of the $2,000 repaid in 20X9 will be less than the value of $2,000 in 20X5. Since the company by law must repay only $2,000 of principal, it has gained by having the use of the money from the loan for 4 years. (The lender of the $2,000 will try to protect the value of his loan in a period of inflation by charging a higher rate of interest; however, this does not alter the fact that the loan remains fixed at $2,000 in money value.)

(b) If a company **holds cash in a period of inflation**, its value in terms of current purchasing power will decline. The company will 'lose' by holding the cash instead of converting it into a non monetary asset.

Similarly, if goods are sold on credit, the amount of the receivable is fixed by contract. In a period of inflation, the current purchasing power of the cash received from the credit sale will be less than the purchasing power of the receivable when it was first incurred.

In CPP accounting, it is therefore argued that there are **gains from having monetary liabilities**, and **losses from having monetary assets**.

(a) In the case of **monetary assets**, a charge needs to be made against in profit or loss, for the loss in purchasing power. For example, if a company has a cash balance of $200, which is just sufficient to buy 100 new items of raw material inventory on 1 January 20X5, and if the rate of inflation during 20X5 is 10%, the company would need $220 to buy the same 100 items on 1 January 20X6 (assuming the items increase in value by the general rate of inflation). By holding the $200 as a monetary asset throughout 20X5, the company would need $20 more to buy the same goods and services on 1 January 20X6 that it could have obtained on 1 January 20X5. $20 would be a CPP loss on holding the monetary asset (cash) for a whole year.

(b) In the case of **monetary liabilities**, the argument in favour of including a 'profit' in CPP accounting is not as strong. By incurring a debt, say, on 1 January 20X5, there will not be any eventual cash input to the business. The 'profit' from the monetary liabilities is a 'paper' profit, and T A Lee has argued against including it in the CPP statement of profit or loss and other comprehensive income.

2.5.7 Restatement in the statement of financial position

Non-monetary items

An asset or liability whose value is not fixed by contract or statute e.g. inventories, non-current assets. Their worth measured in $CPP therefore alters due to inflation.

They are restated to year end value using the GPI.

Monetary items

An asset or liability fixed in $ by contract or statute – e.g. cash, receivables, payables, loan capital. In CPP accounts these are therefore fixed in value – when paid the dollars are of lower purchasing power.

No adjustment necessary as they are already stated in the year end values.

2.5.8 Restatement in the statement of profit or loss

All items that are not already stated in year end values must be restated. Unless told otherwise, we assume that sales and purchases etc accrue evenly throughout the period and so an average GPI is used.

A holding gain/loss is calculated on monetary items.

For monetary items, there are real gains and losses made. These are not measured in HCA but are in CPP.

Example: CPP accounting

Seep Co had the following assets and liabilities at 31 December 20X4.

(a) All non-current assets were purchased on 1 January 20X1 at a cost of $60,000, and they had an estimated life of six years. Straight line depreciation is used.

(b) Closing inventories have a historical cost value of $7,900. They were bought in the period November-December 20X4.

(c) Receivables amounted to $8,000, cash to $2,000 and short-term payables to $6,000.

(d) There are non-current liabilities of $15,000.

(e) The general price index includes the following information:

Year	*Date*	*Price index*
20X1	1 January	100
20X4	30 November	158
20X4	31 December	160
20X5	31 December	180

The historical cost statement of financial position of Seep Co at 31 December 20X4 was as follows.

	$	$
Assets		
Non-current assets at cost		60,000
Less depreciation		40,000
		20,000
Current assets		
Inventories	7,900	
Receivables	8,000	
Cash	2,000	
		17,900
Total assets		37,900
Equity and liabilities		
Capital		
Equity		16,900
Loan capital		15,000
		31,900
Current liabilities: payables		6,000
Total equity and liabilities		37,900

Required

(a) Prepare a CPP statement of financial position as at 31 December 20X4.

(b) What was the depreciation charge against CPP profits in 20X4?

(c) What must be the value of equity at 31 December 20X5 if Seep Co is to 'break even' and make neither a profit nor a loss in 20X5?

Solution

(a) CPP STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 20X4

	$CPP	$CPP
Assets		
Non-current assets, at cost (60,000 × 160/100)	96,000	
Less depreciation (40,000 × 160/100)	64,000	
		32,000

	$CPP	$CPP
Inventory* (7,900 × 160/158)	8,000	
Receivables**	8,000	
Cash**	2,000	
		18,000
		50,000
Equity and liabilities		
Capital		
Loan capital**		15,000
Equity ***		29,000
		44,000
Current liabilities: payables**		6,000
		50,000

Notes

*Inventories purchased between 1 November and 31 December are assumed to have an average index value relating to the mid-point of their purchase period, at 30 November.

**Monetary assets and liabilities are not re-valued, because they are already stated in year end values.

***Equity is a mixture of monetary and non-monetary asset values, and is the balancing figure in this example.

(b) Depreciation in 20X4 would be one sixth of the CPP value of the assets at the end of the year.

$^1/_6$ of $96,000 = $16,000. Alternatively, it is:

($^1/_6$ × $60,000) × 160/100 = $16,000

(c) To maintain the capital value of equity in CPP terms during 20X5, the CPP value of equity on 31 December 20X5 will need to be:

$29,000 × 180/160 = $32,625

Question 5.1

CPP profits

Learning outcomes B1

Rice and Price set up in business on 1 January 20X5 with no non current assets, and cash of $5,000. On 1 January, they acquired inventories for the full $5,000, which they sold on 30 June 20X5 for $6,000. On 30 November they obtained a further $2,100 of inventory on credit. The index of the general price level gives the following index figures.

Date	*Index*
1 January 20X5	300
30 June 20X5	330
30 November 20X5	350
31 December 20X5	360

Calculate the CPP profits (or losses) of Rice and Price for the year to 31 December 20X5.

2.5.9 The advantages and disadvantages of CPP accounting

Advantages

(a) The restatement of asset values in terms of a **stable money value** provides **a more meaningful basis of comparison** with other companies.

(b) Similarly, provided that previous years' profits are revalued into CPP terms, year-by-year comparisons are also more valid.

(c) **Profit** is measured in **'real' terms** and excludes 'inflationary value increments'. This enables better forecasts of future prospects to be made.

(d) CPP **avoids the subjective valuations** of current value accounting, because a single price index is applied to all non-monetary assets.

(e) CPP **highlights the gains/losses** arising as a result of inflation

(f) Since it is based on historical cost accounting, **raw data is easily verified**, and inflation adjustments can also be readily audited.

Disadvantages

(a) For the reader of the financial statements, it is **not clear what $CPP means**. 'Generalised purchasing power' as measured by a retail price index, or indeed any other general price index, has no obvious practical significance.

(b) How meaningful is $CPP, or gains/ losses made on monetary items?

(c) The use of indices inevitably involves **approximations** in the measurements of value.

(d) CPP does not show whether the business has maintained its **operating capability**. Companies hold specific purchasing power, not general purchasing power.

(e) Due to inflation eroding the real value of debt, highly geared companies will seem more successful under CPP financial statements. (High interest costs will to some extent reduce this difficulty.)

In this respect, a CPP statement of financial position has similar drawbacks to an historical cost statement of financial position.

2.5.10 Example: CCA v CPP

Suppose that Arthur Smith Co buys an asset on 1 January for $10,000. The estimated life of the asset is five years, and straight line depreciation is charged. At 31 December the gross replacement cost of the asset is $10,500 (5% higher than on 1 January) but general inflation during the year, as measured by the retail price index, has risen 20%.

(a) In CPP, to maintain the value of the business against inflation, the asset should be revalued as follows.

	$
Gross ($10,000 × 120%)	12,000
Depreciation charge for the year (@ 20%)	2,400
Net value in the statement of financial position	9,600

(b) In CCA, the business maintains its operating capability if we revalue the asset as follows.

	$
Gross replacement cost	10,500
Depreciation charge for the year (note)	2,100
NRC; statement of financial position value	8,400

Note

	$
Historical cost depreciation	2,000
CCA depreciation adjustment (5%)	100
Total CCA depreciation cost	2,100

CCA preserves the operating capability of the company but does not necessarily preserve it against the declining value in the purchasing power of money (against inflation). As mentioned previously, CCA is a system which takes account of specific price inflation (changes in the prices of specific assets or groups of assets) but **not of general price inflation**.

A strict view of current cost accounting might suggest that a set of CCA accounts should be prepared from the outset on the basis of deprival values. In practice, current cost accounts are usually prepared by **starting from historical cost accounts and making appropriate adjustments**.

Example: Comparing HCA, CPP and CCA

Thunderkat Co commenced business on 1 January 20X9, financed by 300,000 $1 ordinary shares and $100,000 10% debentures, interest payable on 31 December each year. Thunderkat Co used the cash raised to buy 40,000 Transformers at $10 each.

The statement of financial position on 1.1.20X9 was as follows.

	$
Inventories	400,000
Share capital and reserves	300,000
10% debentures	100,000
	400,000

All the Transformers were sold on 31 December 20X9 for $500,000. On that date the replacement cost of a Transformer was $11.50. The general rate of inflation as measured by the general prices index was 12% during 20X9. All profit is to be distributed by way of dividend.

Required

Produce a statement of profit or loss for the year ended 31 December 20X9 and a statement of financial position at that date under the following approaches to inflation:

(a) Historical cost accounting

(b) Current purchasing power

(c) Current cost accounting.

Solution

Thunderkat Co – Statement of profit or loss

	(a) HCA $	*(b) CPP* $	*(c) CCA* $
Revenue	500,000	500,000	500,000
Cost of sales	(400,000)	(448,000)	(460,000)
Gross profit	100,000	52,000	40,000
Interest	(10,000)	(10,000)	(10,000)
Gain on monetary item	–	12,000	–
Profit for the period	90,000	54,000	30,000
Appropriation of profit for the period:			
Dividend	(90,000)	(54,000)	(30,000)
Profit transferred to retained earnings	0	0	0

	(a) HCA $	*(b) CPP* $	*(c) CCA* $
Statement of financial position			
Cash	400,000	436,000	460,000
Share capital and reserves	300,000	336,000	360,000
Debentures	100,000	100,000	100,000
	400,000	436,000	460,000

2.6 'Real terms' system

The 'real terms' system is a combination of CPP and CCA approaches, adopting the best of both methods.

In the 'real terms' concept, assets are measured entirely on a CCA basis, since this reflects more meaningfully the specific purchasing power that they represent.

By contrast, shareholders' equity is measured in terms of the value of the shareholders' investment in purchasing power terms.

2.6.1 Restatement in the statement of financial position

As discussed above, assets are valued on a CCA basis in a 'real terms' system.

Equity is restated, using the General Price Index (GPI).

2.6.2 Restatement in the statement of profit or loss

The 'real terms' system incorporates some of the CCA adjustments we have looked at above:

(a) Cost of sales adjustment (COSA)
(b) Additional depreciation adjustment

In addition, holding gains on non-monetary items (non-current assets and inventories are recorded as **replacement cost less historical cost**, along with with an adjustment for **changes in the GPI**.

As seen above, there will also be an adjustment to opening equity for changes in the GPI.

2.6.3 Advantages and disadvantages of the 'real terms' system

Advantages

(a) It combines best features of CPP and CCA.
(b) It shows real asset values and the purchasing power of equity.

Disadvantages

(a) Practically, it is difficult to obtain data and indices.
(b) Accounting under the 'real terms' system involves complex calculations.
(c) Understandability is impaired due to its complexity.

Section summary

CCA attempts to overcome the problem of accounting for **specific price inflation**. It is based on the concept of **physical capital maintenance**.

CPP accounting is a method of accounting for **general (not specific) inflation**. It does so by expressing asset values in a stable monetary unit, the $CPP or $ of current purchasing power.

'**Real terms**' accounting incorporates aspects of both CCA and CPP.

3 Hyperinflation

Introduction

In a hyperinflationary economy, **money loses its purchasing power very quickly**. Comparisons of transactions at different points in time, even within the same accounting period, are misleading. It is therefore considered inappropriate for entities to prepare financial statements without making adjustments for the **fall in the purchasing power of money over time**..

IAS 29 *Financial reporting in hyperinflationary economies* applies to the **primary financial statements** of entities (including consolidated financial statements and statements of cash flows) whose functional currency is the currency of a hyperinflationary economy. In this section, we will identify the hyperinflationary currency as $H.

The standard does not define a **hyperinflationary economy** in exact terms, although it indicates the characteristics of such an economy, for example, where the cumulative inflation rate over three years approaches or exceeds 100%.

Question 5.2 Hyperinflation

Learning outcomes B1

What other factors might indicate a hyperinflationary economy?

The reported value of **non-monetary assets**, in terms of current measuring units, increases over time. For example, if a non-current asset is purchased for $H1,000 when the price index is 100, and the price index subsequently rises to 200, the value of the asset in terms of current measuring units (ignoring accumulated depreciation) will rise to $H2,000.

In contrast, the value of **monetary assets and liabilities**, such as a debt for 300 units, is unaffected by changes in the prices index, because it is an actual money amount payable or receivable. If a debtor owes $H300 when the price index is 100, and the debt is still unpaid when the price index has risen to 150, the debtor still owes just $H300. The purchasing power of monetary assets, however, will decline over time as the general level of prices goes up.

3.1 Requirement to restate financial statements in terms of measuring units current at the year end

In most countries, financial statements are produced on the basis of either:

(a) **historical cost**, except to the extent that some assets (eg property and investments) may be revalued, or

(b) **current cost**, which reflects the changes in the values of specific assets held by the entity.

In a hyperinflationary economy, neither of these methods of financial reporting are meaningful unless adjustments are made for the fall in the purchasing power of money. IAS 29 therefore requires that the **primary financial statements** of entities in a hyperinflationary economy should be restated on a **current purchasing power (CPP)** basis. The value of the assets and liabilities are expressed in terms of **measuring unit current at the year end date**.

KEY TERM

MEASURING UNIT CURRENT AT THE YEAR END DATE. This is a unit of local currency with a purchasing power as at the date of the statement of financial position, in terms of a general prices index.

Financial statements that are not restated (ie that are prepared on a historical cost basis or current cost basis without adjustments) may be presented as **additional statements** by the entity, but this is discouraged. The primary financial statements are those that have been restated.

After the assets, liabilities, equity and statement of profit or loss and other comprehensive income of the entity have been restated, there will be a **net gain or loss on monetary assets and liabilities (the 'net monetary position')** and this should be recognised separately in profit or loss for the period.

3.2 Making the adjustments

IAS 29 recognises that the resulting financial statements, after restating all items in terms of measuring units current at the year end, will **lack precise accuracy**. However, it is more important that certain procedures and judgements should be applied consistently from year to year. The implementation guidelines to the Standard suggest what these procedures should be.

3.3 Statement of financial position: historical cost

Where the entity produces its financial statements on a historical cost basis, the following procedures should be applied.

(a) Items that are not already expressed in terms of measuring units current at the year end should be restated, using a **general prices index**, so that they are valued in measuring units current at the year end.

(b) **Monetary assets and liabilities** are not restated, because they are already expressed in terms of measuring units current at the year end.

(c) Assets that are **already stated at market value or net realisable value** need not be restated, because they too are already valued in measuring units current at the year end.

(d) Any assets or liabilities **linked by agreement to changes in the general level of prices**, such as indexed-linked loans or bonds, should be adjusted in accordance with the terms of the agreement to establish the amount outstanding as at the year end.

(e) All **other non-monetary assets**, ie tangible long-term assets, intangible long-term assets (including accumulated depreciation/amortisation) investments and inventories, should be restated in terms of measuring units as at the year end, by applying a general prices index.

Similar to what we have already seen in CPP accounting, the **method of restating** these assets should normally be to multiply the original cost of the assets by a factor: [prices index at year end /prices index at date of acquisition of the asset].

For example, if an item of machinery was purchased for $H2,000 units when the prices index was 400 and the prices index at the year end is 1,000, the restated value of the long-term asset (before accumulated depreciation) would be:

$$\$H2{,}000 \times [1{,}000/400] = \$H5{,}000$$

If, in the above example, the non current asset has been held for half its useful life and has no residual value, the **accumulated depreciation** would be restated as $H2,500. (The depreciation charge for the year should be the amount of depreciation based on historical cost, multiplied by the same factor as above: 1,000/400.)

If an asset has been **revalued** since it was originally purchased (eg a property), it should be restated in measuring units at the year end date by applying a factor: (prices index at year end/prices index at revaluation date) to the revalued amount of the asset.

If the restated amount of a non monetary asset **exceeds its recoverable value** (ie its net realisable value or market value), its value should be reduced accordingly.

The **owners' equity** (all components) as at the start of the accounting period should be restated using a general prices index from the beginning of the period.

3.4 Statement of profit or loss and other comprehensive income: historical cost

In the statement of profit or loss and other comprehensive income, all amounts of income and expense should be **restated in terms of measuring units current at the year end**.

All amounts therefore need to be restated by a factor that allows for the change in the prices index since the item of income or expense was first recorded.

3.5 Gain or loss on net monetary position

In a period of inflation, , an entity that holds monetary assets (cash, receivables) will suffer a fall in the purchasing power of these assets. By the same token, in a period of inflation, the value of monetary liabilities, such as a bank overdraft or bank loan, declines in terms of current purchasing power.

(a) If an entity has an **excess of monetary assets over monetary liabilities**, it will suffer a loss over time on its net monetary position, in a period of inflation, in terms of measuring units as at 'today's date'.

(b) If an entity has an **excess of monetary liabilities over monetary assets**, it will make a gain on its net monetary position, in a period of inflation.

In the financial statements of an entity reporting in the currency of a hyperinflationary economy, the gain or loss on the net monetary position:

(a) may be derived as the **difference between total assets and total equity and liabilities**, after restating the non-monetary assets, owners' equity, statement of profit or loss and other comprehensive income items and index-linked items, *or*

(b) may be estimated by **applying the change in the general prices index** for the period to the weighted average of the net monetary position of the entity in the period.

The gain or loss on the net monetary position should be **included in profit or loss** and disclosed separately. (Any adjustment that was made to index-linked items can be set off against this net monetary gain or loss.)

Example: hyperinflationary financial statements

At 1 January 20X3, when the general prices index was 100, the statement of financial position of X Co was as follows.

	$H
Assets	
Non-monetary assets	2,000
Monetary assets	2,000
	4,000
Liabilities and equity	
Monetary liabilities	1,000
Equity	3,000
	4,000

Suppose that the general prices index rises to 150 at 31 December 20X3. X Co has acquired no additional assets, liabilities or equity during the year.

Required

Show the adjustments required in the statement of financial position.

Solution

Restating this statement of financial position in terms of measuring units when the prices index is 50% higher gives the following.

	$H
Assets	
Non-monetary assets (× 150/100)	3,000
Monetary assets	2,000
	5,000
Liabilities and equity	
Monetary liabilities	1,000
Equity (× 150/100)	4,500
	5,500

X Co has suffered a loss on its net monetary position of $H500, in terms of measuring units at the current date $H(5,500 – 5,000). This is because it has held net monetary assets of $H2,000 during the period.

3.6 Current cost financial statements: restating the financial statements

A similar procedure is required to restate the financial statements of an entity that prepares its financial statements a current cost basis.

(a) Items stated in the **statement of financial position at current cost do not need to be restated**. Other items should be restated in the same way as for adjusting accounts prepared on a historical cost basis.

(b) In the **statement of profit or loss and other comprehensive income**, cost of sales and depreciation are generally reported at current costs at the time of consumption and sales and other expenses at money amounts at the time they occurred. These items **will need to be restated** in terms of measuring units as at the year end by making a prices index adjustment.

(c) There will be a **gain or loss on the net monetary position**, which will be established in the same way as for accounts based on historical cost.

3.7 Economies ceasing to be hyperinflation economies

When an economy ceases to be a hyperinflation economy, entities reporting in the currency of the economy should cease to comply with IAS 29.

Suppose, for example, that in 20X4 an entity reports in compliance with IAS 29, but in 20X5 it reverts to historical cost accounting because the economy is no longer a hyperinflation economy. It should then treat the amounts expressed in the measuring unit at the end of 20X4 as the basis for the carrying amounts in its financial statements for 20X5.

3.8 Disclosures

IAS 29 requires the following disclosures.

- The fact that the **financial statements have been restated** for the changes in general purchasing power.
- Whether the financial statements as shown are based on **historical cost or current cost**.
- The **identity of the prices index** used to make the restatements, its level at the year end the movement in the index during the current and the previous reporting periods.

In financial statements prepared under IAS 29, corresponding figures for the previous year should be **restated using the general prices index**.

3.9 Hyperinflation and changes in foreign exchange rates

IAS 21 *The effects of changes in foreign exchange rates* will be covered in a later chapter. However, a parent may have a foreign operation whose functional currency is the currency of a hyperinflationary economy. When the parent prepares consolidated financial statements it should:

(a) **restate the financial statements** of the foreign operation in accordance with IAS 29; **before**

(b) **translating all amounts** from the foreign operation's functional currency to the presentation currency **at the closing rate**.

The following example is a simple illustration of the problems that can arise where a foreign subsidiary operates in a hyperinflationary economy.

Example: 'disappearing assets'

A company has a subsidiary in a country which suffers from hyperinflation. On 31 December 20X2, the subsidiary acquired freehold land for $H1,000,000. At that date the exchange rate was $H4 = $1 and the relevant price index was 100.

At 31 December 20X3 the exchange rate was $H10 = $1 and the price index was 300.

Required

Show the value at which the freehold land is included in the consolidated financial statements of the parent at 31 December 20X3 if the subsidiary's financial statements:

(a) are not restated to reflect current price levels;
(b) are restated to reflect current price levels.

Solution

(a) Without restatement

Assuming that the subsidiary has a different functional currency ($H) from that of its parent ($) the statement of financial position is translated at the closing rate.

At 31 December 20X3 the land is included at $100,000 ($H1,000,000 @ 10).

At 31 December 20X2 (the date of purchase) its was stated at $250,000 ($H1,000,000 @ 4). Therefore there has been an exchange loss of $150,000 (which may significantly reduce equity) and the land appears to have fallen to only 40% of its original value.

(b) With restatement

At 31 December 20X3 the land is included at $300,000 ($H1,000,000 × 300/100 @ 10).

The value of the land is now adjusted so that it reflects the effect of inflation over the year and the 'disappearing assets' problem is overcome.

Where the financial statements of an entity whose functional currency is that of a hyperinflationary economy are translated into a different presentation currency, **comparative amounts** should be those that were presented as current year amounts in the prior year financial statements (ie, **not adjusted** for subsequent changes in the price level or subsequent changes in exchange rates).

Section summary

IAS 29 requires financial statements of entities operating within a hyperinflationary economy to be restated in terms of measuring units current at the year end.

- IAS 29 does not define **hyperinflationary economies**, but economies where the inflation rate over three years has cumulatively exceeded 100% are seen to be hyperinflationary economies.
- Financial statements should be **restated on a CPP basis, based on a measuring unit current** at the year end
  - **Monetary assets/liabilities** do not need to be restated
  - **Non-monetary assets/liabilities** must be restated by applying a general prices index
  - Items of income/expense must be restated
  - **Gain/loss on net monetary items** must be reported in profit or loss for the year

4 Fair value measurement

Introduction

In May 2011 the IASB published IFRS 13 *Fair value measurement.* The project arose as a result of the Memorandum of Understanding between the IASB and FASB (February 2006) reaffirming their commitment to the convergence of IFRSs and US GAAP. With the publication of IFRS 13, IFRS and US GAAP now have the same definition of fair value and the measurement and disclosure requirements are now aligned. You will meet IFRS 13 in Chapter 6.

4.1 Objective

IFRS 13 sets out to:

(a) Define fair value
(b) Set out in a single IFRS a framework for measuring fair value
(c) Require disclosure about fair value measurements

4.2 Definitions

IFRS 13 defines fair value as '**the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.**'

The price which would be received to sell the asset or paid to transfer (not settle) the liability is described as the 'exit price' and this is the definition used in US GAAP. Although the concept of the 'arm's length transaction' has now gone, the market-based current exit price retains the notion of an exchange between unrelated, knowledgeable and willing parties.

4.3 Scope

IFRS 13 applies when another IFRS requires or permits fair value measurements or disclosures. The measurement and disclosure requirements do not apply in the case of:

(a) Share-based payment transactions within the scope of IFRS 2 *Share-based payment*
(b) Leasing transactions within the scope of IAS 17 *Leases*; and
(c) Net realisable value as in IAS 2 *Inventories* or value in use as in IAS 36 *Impairment of assets.*

Disclosures are not required for;

(a) Plan assets measured at fair value in accordance with IAS 19 *Employee benefits*

(b) Plan investments measured at fair value in accordance with IAS 26 *Accounting and reporting by retirement benefit plans*; and

(c) Assets for which the recoverable amount is fair value less disposal costs under IAS 36 *Impairment of assets*

Fair value measurements are based on an asset or a liability's **unit of account**, which is specified by each IFRS where a fair value measurement is required. For most assets and liabilities, the unit of account is the individual asset or liability, but in some instances may be a group of assets or liabilities.

For example, a premium or discount on a large holding of the same shares (because the market's normal daily trading volume is not sufficient to absorb the quantity held by the entity) is not considered when measuring fair value: the quoted price per share in an active market is used.

4.4 Measurement

Fair value is a market-based measurement, not an entity-specific measurement. It focuses on assets and liabilities and on exit (selling) prices. It also takes into account market conditions at the measurement date. In other words, it looks at the amount for which the holder of an asset could sell it and the amount which the holder of a liability would have to pay to transfer it. It can also be used to value an entity's own equity instruments.

Because it is a market-based measurement, fair value is measured using the assumptions that market participants would use when pricing the asset, taking into account any relevant characteristics of the asset.

It is assumed that the transaction to sell the asset or transfer the liability takes place either:

(a) In the *principal market* for the asset or liability; or
(b) In the absence of a principle market, in the *most advantageous* market for the asset or liability.

The principal market is the market which is the most liquid (has the greatest volume and level of activity) for that asset or liability. In most cases the principal market and the most advantageous market will be the same.

IFRS 13 acknowledges that when market activity declines an entity must use a valuation technique to measure fair value. In this case the emphasis must be on whether a transaction price is based on an **orderly transaction**, rather than a forced sale.

4.5 Valuation techniques

IFRS 13 states that valuation techniques must be those which are appropriate and for which sufficient data are available. Entities should maximise the use of relevant **observable inputs** and minimise the use of **unobservable inputs**.

The standard establishes a three-level hierarchy for the inputs that valuation techniques use to measure fair value:

Level 1 Quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity can access at the measurement date

Level 2 Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, eg quoted prices for similar assets in active markets or for identical or similar assets in non active markets or use of quoted interest rates for valuation purposes

Level 3 Unobservable inputs for the asset or liability, ie using the entity's own assumptions about market exit value.

Level 3 inputs are only used where relevant observable inputs are not available or where the entity determines that transaction price or quote price does not represent fair value.

The measurement of the **fair value of a liability** assumes that the liability **remains outstanding** and the market participant transferee would be required to fulfil the obligation, rather than being extinguished. The fair value of a liability also reflects the effect of **non-performance risk** (the risk that an entity will not fulfil an obligation), which includes, but may not be limited to, an entity's own credit risk (ie risk of non-payment).

4.5.1 Non-financial assets

For **non-financial assets** the fair value measurement looks at the use to which the asset can be put. The fair value measurement is the value for using the asset in its **highest and best use**, or by selling it to another market participant that would use it in its highest and best use.

4.6 Disclosure

An entity must disclose information that helps users of its financial statements assess both of the following:

(a) For assets and liabilities that are measured at fair value on a recurring or non-recurring basis, the **valuation techniques** and **inputs** used to develop those measurements.

(b) For recurring fair value measurements using significant **unobservable inputs** (Level 3), the effect of the measurements on profit or loss or other comprehensive income for the period. Disclosure requirements will include:

- Reconciliation from opening to closing balances
- Quantitative information regarding the inputs used
- Valuation processes used by the entity
- Sensitivity to changes in inputs

4.7 Was the project necessary?

The IASB is already considering the matter of the measurement basis for assets and liabilities in financial reporting as part of its conceptual framework project. It could therefore be argued that it was not necessary to have a separate project on fair value. The conceptual framework might have been the more appropriate forum for discussing **when** fair value should be used **as well as how to define and measure it.**

However, it has been argued that a concise definition and clear measurement framework is needed because there is so much inconsistency in this area, and this may form the basis for discussions in the conceptual framework project.

The IASB has also pointed out that the global financial crisis has highlighted the need for:

- Clarifying how to measure fair value when the market for an asset becomes less active; and
- Improving the transparency of fair value measurements through disclosures about measurement uncertainty.

4.8 Advantages and disadvantages of fair value vs historical cost

Fair value

Advantages

- Relevant to users' decisions
- Consistency between companies
- Predicts future cash flows

Disadvantages

- Subjective (not reliable)
- Hard to calculate if no active market
- Time and cost
- Lack of practical experience/familiarity
- Less useful for ratio analysis (bias)
- Misleading in a volatile market

Historical cost

Advantages

- Reliable
- Less open to manipulation
- Quick and easy to ascertain
- Matching (cost and revenue)
- Practical experience & familiarity

Disadvantages

- Less relevant to users' decisions
- Need for additional measure of recoverable amounts (impairment test)
- Does not predict future cash flows

Section summary

IFRS 13 is an important recent standard giving guidance on fair value measurement.

Chapter Roundup

- ✓ **Profit** can be viewed as a measure of the increase in an entity's capital over the duration of an accounting period.
- ✓ The **measurement of profit** depends on the concept of **capital maintenance**.
- ✓ **CCA** attempts to overcome the problems of accounting for **specific price inflation.** It is based on a concept of **physical capital maintenance**.
- ✓ **CPP accounting** is a method of accounting for **general** (not specific) inflation. It does so by expressing asset values in a stable monetary unit, the **$CPP** or $ of current purchasing power.
- ✓ **IAS 29** requires financial statements of entities operating within a hyperinflationary economy to be restated in terms of measuring units current at the year end.
  - IAS 29 does not define **hyperinflationary economies**, but they have various characteristics
  - Financial statements should be **restated based on a measuring unit current** at the year end
    - **Monetary assets/liabilities** do not need to be restated
    - **Non-monetary assets/liabilities** must be restated by applying a general prices index
    - Items of income/expense must be restated
    - **Gain/loss on net monetary items** must be reported in profit or loss for the year

Quick Quiz

1 Under current cost accounting, capital is maintained if at the end of a period, the entity can achieve the same _____ as at the beginning of the period. *Complete the blank.*

2 Distinguish between specific price inflation and general price inflation.

Answers to Quick Quiz

1 The same physical output

2
- Specific price inflation measures price changes over time for a specific asset or group of assets
- General price inflation measures the continual reduction in the general purchasing power of money

Answers to Questions

5.1 CPP profits

The approach is to prepare a CPP statement of profit or loss and other comprehensive income.

	$CPP	$CPP
Sales ($6,000 × 360/330)		6,545
Less cost of goods sold ($5,000 × 360/300)		6,000
		545
Loss on holding cash for 6 months*	(545)	
Gain by owing payables for 1 month**	60	
		485
CPP profit		60

* ($6,000 × 360/330) – $6,000 = $CPP 545

**($2,100 × 360/350) – $2,100 = $CPP 60

5.2 Hyperinflation

These are examples, but the list is not exhaustive.

(a) The population prefers to retain its wealth in non-monetary assets or in a relatively stable foreign currency. Amounts of local currency held are immediately invested to maintain purchasing power.

(b) The population regards monetary amounts not in terms of the local currency but in terms of a relatively stable foreign currency. Prices may be quoted in that currency.

(c) Sales/purchases on credit take place at prices that compensate for the expected loss of purchasing power during the credit period, if that period is short.

(d) Interest rates, wages and prices are linked to a price index.

Now try this question from the Exam Question Bank

Number	Level	Marks	Time
Q5	Introductory	10	18 mins