

# Principles of accounting

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Undergraduate study in  
Economics, Management,  
Finance and the Social Sciences



THE LONDON SCHOOL  
OF ECONOMICS AND  
POLITICAL SCIENCE ■



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# Contents

<b>Introduction</b>	<b>1</b>
The study of accounting	1
Aims of the unit	2
Learning outcomes	2
Reading	2
Structure of the subject guide	3
How to use the subject guide	4
Examination advice	6
List of abbreviations used in this subject guide	8
<b>Chapter 1: Accounting in context</b>	<b>11</b>
Aims and learning objectives	11
Essential reading	11
Further reading	11
Introduction	11
What is accounting?	12
Accounting theory and practice	15
Accounting information and its uses	16
Financial accounting	16
Management accounting	17
Summary	17
Sample examination question	18
<b>Chapter 2: Fundamentals of financial accounting</b>	<b>19</b>
Aims and learning objectives	19
Essential reading	19
Further reading	19
Introduction	19
An introduction to the financial statements	20
Accounting concepts, bases and policies	27
Summary	29
Sample examination question	30
<b>Chapter 3: Data processing</b>	<b>31</b>
Aims and learning objectives	31
Essential reading	31
Further reading	31
Introduction	31
One transaction: two effects	32
Recording transactions: books of prime entry	34
Getting it right: internal control	37
Double-entry bookkeeping	38
Trial balance	45
Summary	47
Sample examination question	47
<b>Chapter 4: Preparing financial statements 1</b>	<b>49</b>
Aims and learning objectives	49
Essential reading	49
Further reading	49
Introduction	49
Inventory, purchases and sales	50
Accruals and prepayments	53

## Principles of accounting

Bad and doubtful debts	56
Depreciation of fixed assets	57
Disposal of fixed assets	60
Summary	61
Examination questions	61
<b>Chapter 5: Preparing financial statements 2</b>	<b>63</b>
Aims and learning objectives	63
Essential reading	63
Introduction	63
Preparing the balance sheet and profit and loss account	64
Incomplete information	72
A note on suspense accounts	76
Summary	81
Sample examination question	81
<b>Chapter 6: Preparing financial statements 3</b>	<b>83</b>
Aims and learning objectives	83
Essential reading	83
Further reading	83
Introduction	83
Different formats for different purposes	84
Preparing company accounts	87
Preparing the cash flow statement	92
Summary	99
Sample examination questions	99
<b>Chapter 7: Using and understanding financial statements</b>	<b>105</b>
Aims and learning objectives	105
Essential reading	105
Further reading	105
Introduction	105
Ratio analysis	106
Writing a report	117
Summary	118
Sample examination question	119
<b>Chapter 8: Alternative valuation approaches</b>	<b>121</b>
Aims and learning objectives	121
Essential reading	121
Introduction	121
Accounting profit and economic income	122
Historic cost accounting and current values	126
Summary	129
Sample examination question	129
<b>Chapter 9: Fundamentals of management accounting</b>	<b>131</b>
Aims and learning objectives	131
Essential reading	131
Introduction	131
Planning and co-ordination	132
Control, communication and motivation	134
Information for decision-making	135
Summary	135
<b>Chapter 10: Cost accounting</b>	<b>137</b>
Aims and learning objectives	137
Essential reading	137
Further reading	137

Introduction	137
Understanding costs	138
Stock valuation – marginal costing	141
Stock valuation – full costing	141
Effects of different stock valuation methods	146
Summary	148
Sample examination questions	148
<b>Chapter 11: Making decisions 1</b>	<b>151</b>
Aims and learning objectives	151
Essential reading	151
Further reading	151
Introduction	151
Cost-volume-profit analysis	152
Relevant costs	156
Limiting factors	159
Summary	161
Sample examination questions	161
<b>Chapter 12: Making decisions 2</b>	<b>165</b>
Aims and learning objectives	165
Essential reading	165
Further reading	165
Introduction	165
Capital investments	166
Payback period	166
Accounting rate of return (ARR)	169
Summary	171
Sample examination question	171
<b>Chapter 13: Making decisions 3</b>	<b>173</b>
Aims and learning objectives	173
Essential reading	173
Further reading	173
Introduction	173
Discounted cash flow techniques	174
Summary	182
Sample examination questions	182
<b>Chapter 14: Planning for the future</b>	<b>185</b>
Aims and learning objectives	185
Essential reading	185
Further reading	185
Introduction	185
Goals and objectives	186
Budgets and forecasts	187
Working capital management	191
Summary	193
Sample examination question	194
<b>Chapter 15: Budgets for control</b>	<b>195</b>
Aims and learning objectives	195
Essential reading	195
Further reading	195
Introduction	195
Standard costs	196
Behavioural effects of using budgets	197
Variance analysis – an introduction	198

## Principles of accounting

Summary	206
Sample examination question	207
<b>Appendix 1: Suggested solutions to selected activities and sample examination questions</b>	<b>209</b>
<b>Appendix 2: Sample examination paper</b>	<b>280</b>

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# Introduction

This subject guide is written for those of you who are studying Principles of Accounting. The unit is intended as a broad introduction to the subject, both for non-specialist students, and as a foundation for further study in the area.

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## The study of accounting

From the outside, accounting can appear to be a purely practical subject. It would be very easy to focus on just the applications of techniques and procedures. But accounting is more than just a set of calculations; unless we can understand and interpret the figures we produce, the calculations are pointless!

Accounting provides information for a wide variety of different users and purposes, and its practices can only be properly understood and assessed in relation to the economic and social environment in which they are applied. Therefore there are four aspects to this subject:

1. Techniques for recording, calculation, classification and reporting of accounting information.
2. The legal and institutional background associated with accounting information.
3. The economic and administrative problems which the information is required to solve.
4. The interpretation of reports prepared using 1 in the light of 2 and 3.

The accounting information referred to in 1 need not be financial, although for our purposes in this unit it will almost always be.

The problems referred to in 3 are largely concerned with the planning of, and control over, the use of economic resources. They are also concerned with the measurement of income and of various kinds of value changes.

In order to properly interpret accounting information as in 4, and apply it to the problems in 3, we need to understand the theory and principles which underlie the techniques in 1.

The study of accounting is traditionally divided into two parts according to the types of users of the accounting information. **Financial accounting** is primarily concerned with the needs of users outside the business (or other organisation). Therefore it relates to the **external** control and management of resources (for example, by shareholders of the company in which they have invested their funds, or by banks making loans). A key part of financial accounting is reporting the performance and position of the business to these external users, via the **financial statements**. The form and content of financial statements is usually highly regulated. In contrast, **management accounting** is concerned with the needs of users inside the business. Therefore it relates to the **internal** control and management of resources (for example, by the directors, management or employees of a company). Management accounting statements may be more detailed than those prepared for external users, and do not normally need to meet any legal requirements.

Countries around the world organise their economic and financial activities in different ways so, inevitably, legal requirements, regulation and administrative procedures also vary across countries. The syllabus is based on the system pertaining to the UK, but the amount of institutional

material that you need to know is kept to a minimum. Even though the material in this text is based on the system in the UK, accounting rules and guidelines around the world are becoming more similar (converging). This is part of a general drive to harmonise international accounting practices.

**It is important to note that a knowledge of UK Statements of Standard Accounting Practice and Financial Reporting Standards, and of International Accounting Standards, is not part of the syllabus.**

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## Aims of the unit

The aims of the unit are to:

- introduce you to the principles underlying accounting
- enable you to apply, interpret and explain key accounting techniques
- provide a broad understanding of the theory and practice of financial and management accounting.

The unit is intended both for non-specialist students, and as a foundation for further study in the area.

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## Learning outcomes

By the time you sit the examination, you should be able to:

- distinguish between different uses of accounting information and relate these uses to the needs of different groups of users
- explain and apply financial accounting concepts and conventions
- prepare basic financial statements from both structured and unstructured data
- analyse, interpret and communicate the information contained in basic financial statements, and explain the limitations of such statements and their analysis
- categorise cost behaviour, and prepare and contrast stock valuations under different costing methods
- describe the budgeting process and discuss the use of budgets in planning and control
- explain, discuss and apply relevant techniques to aid internal users in decision-making.

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## Reading

### Essential reading

Glautier, M.W.E. and B. Underdown *Accounting theory and practice*. (Harlow: Financial Times Prentice Hall, 2001) seventh edition [ISBN 0273651617].

### Further reading

McLaney, E. and P. Atrill *Accounting: an introduction*. (Harlow: Financial Times Prentice Hall, 2002) second edition [ISBN 0273655507].

Those who prefer to use a textbook other than that by Glautier and Underdown (2001) (**including** if you are using an earlier edition of Glautier and Underdown) should ensure that all topics outlined in this subject guide are covered. In addition, you should ensure that appropriate emphasis is placed on underlying theories and principles, and the ability to explain and interpret accounting information, as well as the preparation of this information.

Those who have problems with double-entry bookkeeping may find it useful to refer to McLaney and Atrill (2002). This text is of general use as a second source of information and examples for most other areas of the course. The text also has a companion website.

### Supplementary reading

Accounting is an evolving and, at times, controversial subject. You are encouraged to stay informed of the current issues in accounting. These issues are often reported in the press, so this may be done by reading the financial pages of a quality daily, or weekly, newspaper. In addition, specialist publications which are worth reading on a regular basis include *Accountancy*, the official monthly journal of the Institute of Chartered Accountants in England and Wales, and *Accountancy Age* (available online at [www.accountancyage.com](http://www.accountancyage.com)). Journals of other professional accountancy bodies in the UK and elsewhere are also suitable. Press, comment and other information can also be found at [www.accountingweb.co.uk](http://www.accountingweb.co.uk).

In recent times, accounting for pensions and financial instruments have been regular features in the UK news. Your country may have very different accounting issues. You may not be able to understand all the technical details, but you should try to understand the main arguments. Who do you think is right, and why? What may be the real motivations behind the arguments? How do the policy-makers respond? What are the causes of accounting scandals that occur? What do you think can be done to prevent these scandals, and why?

### Reference books

Collin, P.H. *Dictionary of accounting*. (London: Bloomsbury, 2004) third edition [ISBN 0747569916].

Hussey, R. *A dictionary of accounting*. (Oxford: Oxford University Press, 1999) second edition [ISBN 019280099X].

Nobes, C. *The Penguin dictionary of accounting*. (London: Penguin Books, 2002) first edition [ISBN 0141514880].

These (or any similar) dictionaries of accounting provide a quick source of reference for any new terms you meet in this subject. You may find a dictionary particularly useful when you approach this subject for the first time, as accounting terminology can sometimes cause unnecessary confusion. You should be aware that precise terminology, particularly with respect to financial reporting terms, may differ from one country to another. If you do not have a dictionary of accounting, you should be able to find the information you need in either Glautier and Underdown, or McLaney and Atrill.

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## Structure of the subject guide

This subject guide is divided into 15 chapters which, with the exception of Chapter 1, are organised in two sections:

- Chapter 1 is a general introduction to the subject, which also distinguishes between financial and management accounting.
- Chapters 2–8 form Section 1 on financial accounting. This section introduces and explains financial accounting concepts and conventions, and provides a grounding in double-entry bookkeeping and the preparation of basic financial statements. This section also enables you to analyse and interpret the information contained in these financial statements, and to explain their limitations, with reference to

underlying theories and principles. Although a grounding in double-entry bookkeeping is provided, you should note that it is possible to prepare basic financial statements from both structured and unstructured information without making use of this technique; double-entry bookkeeping is used by businesses to record financial transactions as they occur, but if this data is already provided then it can be directly manipulated for financial reporting purposes.

- Chapters 9–15 form Section 2 on management accounting. This section introduces a range of management accounting applications and techniques for planning, decision-making and control. These techniques are supported by discussion of the underlying theories and principles, and emphasis is placed on the ability to interpret and critique their use.
- Finally, Appendix 1 gives some suggested solutions to the exercises and sample examination questions set in the chapters. Appendix 2 contains a sample examination paper and extracts from interest (discount factor) tables.

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## How to use the subject guide

This subject guide is intended to supplement the essential reading indicated in the text, not to replace it. The guide relies on the recommended text (Glautier and Underdown) to provide the theoretical grounding for the material and for many definitions, examples and explanations. The subject guide:

- provides a framework for your study of the subject using the recommended text
- contains aims and learning objectives for each topic, and references to the essential and further reading
- acts as a pointer to the most important issues dealt with in the reading
- provides additional explanations where appropriate
- contains additional worked examples, exercises for you to work through yourself, and sample examination questions.

It is important to attempt all the exercises and to ensure you take the time to fully understand the material covered in each chapter of the subject guide.

You should complete Chapter 1 first of all, before progressing to the other sections of the guide. Thereafter, you are **strongly advised** to attempt the work relating to financial accounting (Section 1) in the order in which it is presented in the guide. However, you may progress to Section 2 (management accounting) before attempting Chapters 7 and 8.<sup>1</sup> Although it is also important to attempt the work relating to management accounting in the general order in which it is presented in the guide, Chapters 14 and 15 may be attempted (in that order) at any time after you have completed Chapters 9 and 10.

It is also possible to leave part of Chapter 3 (Data processing) and return to it at a later date, if it is causing you problems. The section of this chapter that you may return to later deals with **double-entry bookkeeping**. You will see that it is not necessary to perform double-entry bookkeeping when preparing financial statements from structured and unstructured information. The most important part of this chapter to understand before progressing onwards is the interpretation, rather than the production, of the **trial balance**.

<sup>1</sup> It is important to study Chapters 2–6 on financial accounting before starting the material on management accounting, because you will need to understand both terminology from the financial accounting material, and the way that financial statements fit together, in order to understand all of the material on management accounting.

It is essential to have a good understanding of the underlying principles of financial accounting before moving onwards as the steps which culminate in the preparation (and interpretation) of financial statements are cumulative. However, you may find that the work on management accounting falls more readily into separate, albeit related, topics. In particular, Chapters 11–13, on decision-making techniques, may be attempted separately from Chapters 14 and 15, on the use of budgets for planning and control.

Unless indicated otherwise, the order in which you should tackle the work specified in each chapter is as follows:

1. Read the chapter aims and learning objectives, and the introduction, to appreciate what material will be covered in the chapter, and what you are expected to achieve by the end. Bear these in mind as you work through the chapter.
2. Read through the specified essential reading (in Glautier and Underdown) to acquire an initial understanding of the text.
3. Work through the material in the subject guide chapter. Pay particular attention to the examples provided, as they contain materials that are either complementary to the textbook, or otherwise important to ensure you gain a full understanding of the material.
4. As you are working through the material in the subject guide chapter, attempt each Activity at the appropriate point. You may need to refer back to relevant parts of the specified reading in Glautier and Underdown in order to do so. If you are still unsure, you could also refer to the relevant chapters specified in the further reading (McLaney and Atrill). Solutions for numerical Activities are provided in Appendix 1.
5. Make notes from the specified reading and the subject guide chapter for future reference. If you struggled with any of the exercises, try to ensure that your notes will help you to avoid the same problems when you review the chapter at a later date.
6. Your knowledge and understanding will be reinforced if you also tackle the questions at the end of the corresponding Glautier and Underdown chapter(s). If you find you are having difficulties, you should work through the subject guide material again before returning to the questions.
7. Check that you have achieved the learning objectives before moving on to the next chapter of the subject guide.
8. Where provided, prepare note solutions for the sample examination questions given at the end of the subject guide chapter and keep them.

Sample examination questions may be more difficult than the exercises in the body of the chapter, and require more thought. They are set at examination level, so you should make sure that you can answer them when you are preparing for the examination. Therefore you should write a full answer to each question when you are revising the chapter, once you have already completed a large part of the unit. When you finish each full answer, look back at your first attempt in note form which you should have kept. Hopefully you will find that completing your study of the whole unit has thrown more light on what you want to say in each answer. Of course, be sure not to wander off the point!

When you have completed all the chapters in the subject guide, including the sample examination questions at the end of each chapter, you will be ready to attempt the sample examination paper in Appendix 2 to this guide. Before you do, make sure that you have read the Introduction to the

booklet containing the last three years' examination papers and examiners' reports, the examination information in the Handbook, and the examination advice below.

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## Examination advice

**Important:** the information and advice given in this section are based on the examination structure used at the time this guide was written. Please note that subject guides may be used for several years. Because of this we strongly advise you to always check both the current *Regulations* for relevant information about the examination, and the current *Examiners' reports* where you should be advised of any forthcoming changes. You should also carefully check the rubric/instructions on the paper you actually sit and follow those instructions. There may also be restrictions on the type of calculator you may use, which you should make sure you can comply with.

The assessment for this unit is by examination. The examination is three hours long. The examination paper is divided into sections and you are required to answer certain questions from each section. Each question you answer carries a mark allocation and there are 100 marks available in total. You should divide your time in the examination between the questions according to the number of marks.

A good student who has completed all their work and who is sitting an examination at an appropriate level for their abilities, should achieve a pass mark or better in the examination. However, some of you will find that, despite your hard work, ability and preparation, you fail. This is usually because marks are thrown away needlessly, through poor examination technique. Examination technique can be learnt and practised. Here are a few tips that may help you to achieve the mark you deserve:

- **Don't panic!** Take a few moments to pause and collect your thoughts before you start. This will help you to make the best use of your time, rather than rushing in without thinking about what you are doing. Also, try not to pay attention to other students around you. This applies just as much to time you spend waiting outside the room where you will take the examination, as it does to the time during the examination.
- **Read the instructions** on the front of the examination paper. Make sure you understand which, and how many, questions you should answer. If you need to choose between questions, read their requirements first so that you know which areas they are examining before you make your choice.
- **You do not have to answer the questions in the order in which they appear in the examination paper.** It is likely that there will be some topics which you feel confident on, and some which you find more difficult. You may decide to tackle the questions you feel most confident about first, so that you can spend your remaining time on the more difficult questions.
- **Read the question and the requirement carefully.** You must answer the question you have actually been asked, **not what you might like to have been asked.** You must also try to answer every part of the question. This is particularly important for discussion questions. It is very easy to read a question and assume it is asking you to repeat everything you know about a particular topic. This is rarely the case! You must apply your knowledge to answer the specific question at hand. Remember, this is an examination for people, not parrots.

- **Read the question and the requirement again!** You should find yourself referring back to the requirement from time to time as you prepare your answer, especially with a discussion question. Sometimes it is a good idea to underline parts of the question to remind yourself what you need to do. Words in the requirement such as 'explain' are asking you to justify your answer or describe the underlying theory, whereas words like 'discuss' are asking you to present all the sides of an argument, or points in favour and against the use of a particular technique. If you are asked to prepare a report, or a set of financial statements, then make sure that your answer is in the appropriate format. If you are asked to recommend a course of action, or to comment on your answer, remember to do so.
- **Pay attention to the time.** You should divide your time between the questions (and between parts of questions) according to the number of marks available. You cannot expect to pass if you do not attempt the required number of questions in each section. Spending too long on any one question means you will be losing important marks on another. You will usually pick up more marks by moving on to a new question when the time is up, than by desperately trying to finish a question you have not completed and which you may be struggling with. You can return to these questions later if you have any spare time after you have attempted the rest of the examination.
- **If your balance sheet doesn't balance in the examination, it doesn't matter.** You may have made any number of small mistakes. Trying to find the error could mean you run out of time, and lose out on marks available in other questions. When the time you have allocated for your answer runs out, you should move on to the next question (or part of question). You will still be awarded marks for the parts of your answer which are correct.
- Questions may have several parts to them, for example a numerical calculation, then a discussion. **Always leave enough time for the discussion parts of questions.** Where a question is divided into different parts, you should split your time up between those different parts according to the mark allocation. Marks are often lost because students use up all of their time to calculate the numbers, and ignore the discussion. Sometimes you can answer the discussion part of a question before you answer the numerical part, in which case it can be a good idea to answer the discussion part first.
- When performing calculations, you must **show all your workings** and state any necessary assumptions that you make. If you do not show how you arrived at your numerical solutions and you have made a mistake, the examiners will not be able to award you any marks for the bits you have done correctly. Your workings may be quite rough, so it is a good idea to cross-reference them to your solutions so that the examiners can easily find them.

Finally, remember that in accounting, practice is everything. Try to attempt the sample examination paper, or past examination papers, under examination conditions. Time yourself and put away all your books. Try to work by yourself in a quiet place where you will not be disturbed. This is especially important if you are not used to sitting three-hour examinations, as the experience itself can be quite stressful.

This may seem like a lot to take in now, but if you follow this advice you will have the best chance of doing well in this unit. Take things one step at a time, and you should find that the subject is much less daunting than you might think!

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## List of abbreviations used in this subject guide

ABC	Activity-based costing
a/c	Account
ARR	Accounting rate of return
b/d	Brought down (from the previous period on the same page)
b/f	Brought forward (from the previous page)
	(note: these last two abbreviations are sometimes used interchangeably)
BEP	Break-even point
BS	Balance sheet
c/d	Carried down (to the next period on the same page)
c/f	Carried forward (to the next page)
	(note: these last two abbreviations are sometimes used interchangeably)
CFS	Cash flow statement
CPP	Current purchasing power
CR	Credit
CVA	Current value accounting
C-V-P	Cost-volume-profit
DF	Discount factor
DR	Debit
EBIT	Earnings before interest and tax
EPS	Earnings per share
F	Favourable (variance)
FIFO	First-in, first-out
FRS	Financial Reporting Standard
	(this is the name given to UK accounting standards created since 1990)
GAAP	Generally accepted accounting practice
HCA	Historic cost accounting
IAS	International Accounting Standard
IFRS	International Financial Reporting Standard
IRR	Internal rate of return
LIFO	Last-in, first-out
Ltd	Limited company
	(these companies are usually referred to as 'private' companies. However, 'private' may also be used more generally to mean 'not listed on a stock exchange')
MC	Marginal costing
NBV	Net book value
NPV	Net present value
NTV	Net terminal value
p.a.	Per annum (i.e. each year)

PBIT	Profit before interest and tax
P/E	Price/earnings ratio
P&L	Profit and loss account (sometimes this is referred to as an 'income statement')
plc	Public limited company (this is usually referred to as a 'public' company. However, sometimes 'public' is used to mean something more, namely 'listed on a stock exchange'. Some, but not all, public limited companies are listed on a stock exchange)
ROCE	Return on capital employed
ROE	Return on shareholders' equity
RPI	Retail price index (in some countries, this is termed the Consumer Price Index – CPI)
SSAP	Statement of Standard Accounting Practice (this is the name given to UK accounting standards created before 1990)
TAC	Total absorption costing
TB	Trial balance
U	Unfavourable (variance)
WAC	Weighted average cost
WIP	Work-in-progress

### **Good luck!**

Now you have read this introduction, and looked at books like Glautier and Underdown, you should have an overview of accounting as a subject. You should also understand how to use this subject guide to help you with the material in this unit.

I find that the best approach to studying accounting is to be as organised as possible. Make yourself a timetable and stick to it. Try to keep up with the work, and study the subject regularly so that you do not forget topics as you go along. Many people enjoy the logic behind accounting techniques and you should find that ideas and concepts make more sense as you continue through the unit. I hope that you enjoy accounting and I am sure you will find many uses for it in the future.

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**Notes**

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# Chapter 1: Accounting in context

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## Aims and learning objectives

The aims of this chapter and the relevant reading are to:

- place accounting in its social, economic and historic context
- relate accounting to the needs of different users of accounting information
- distinguish between financial and management accounting
- introduce accounting theory and its role in policy-making.

By the end of this chapter and the relevant reading, you should be able to:

- briefly describe the development of accounting through time
- outline the changing role of accounting in relation to the changing economic and social environment, including the influence of accounting theory
- identify the different groups of users of accounting information and discuss their information needs
- compare and contrast financial and management accounting.

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## Essential reading

Glautier, M.W.E. and B. Underdown *Accounting theory and practice*. (Harlow: Financial Times Prentice Hall, 2001) seventh edition [ISBN 0273651617] Chapters 1, 2 and 3.

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## Further reading

McLaney, E. and P. Atrill *Accounting: an introduction*. (Harlow: Financial Times Prentice Hall, 2002) second edition [ISBN 0273655507] Chapter 1.

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## Introduction

This chapter discusses the role and development of accounting. This overview of accounting will enable you to place the subject in a social and historical context, and appreciate the influence and importance of accounting in many features of everyday life. Accounting produces a wide range of information for a variety of different users. The subject is split into two key areas, namely **financial accounting** and **management accounting**. This chapter distinguishes between these two areas in terms of the different types of users of the information provided, and the purposes for which the information is used.

Understanding why information is needed and how it is used is central to determining what information to provide, how best to produce and present it, and what its limitations are. You should keep these ideas in mind throughout this unit and whenever you read any commentaries or news stories in the financial press.

### Now read:

Chapters 1, 2 and 3 in Glautier and Underdown (2001). Chapter 1 describes the development of accounting through time and relates the scope of accounting to the changing environment. Chapter 3 is important

as it introduces accounting theory and explains its role in policy-making. Chapter 2 discusses the role of accounting in the provision of information to different user groups, and how this information is used.

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## What is accounting?

This is not an easy question. What do you think accounting is? The scope and definition of accounting changes throughout time. In general, it is argued that accounting is concerned with the provision of information about the position and performance of an enterprise that is useful to a wide range of potential users in making decisions.

Historically, this information has been financial, but accounting is increasingly being used to address the ‘triple-bottom-line’ of social and environmental, as well as economic, concerns. In this unit we focus on financial uses of accounting but you can study social and environmental reporting later in unit 93, **Auditing**. Similarly, in this course the types of enterprises that we will focus on are businesses whose aim is to make profit or otherwise to increase their owners’ wealth.<sup>1</sup> However, it is important to remember that other types of enterprises such as charities, other non-government organisations, and public sector bodies such as schools, universities, hospitals, and local and national government, also use accounting. You can also find out more about accounting for these types of enterprises in unit 93, **Auditing**.

The decisions that users of accounting information make may be economic or legal in nature. Economic decisions are concerned with the allocation of resources, for example, whether to sell or invest in a business, or invest in the equipment to manufacture a new product. ‘Legal’ decisions are concerned with determining whether managers have made a good job of running a business on the owners’ behalf (stewardship), and how much managers should be paid, or they concern matters such as how much tax a business should pay, or whether a business has broken the terms of its borrowing agreements.

Users of accounting information are usually thought of as individuals, but there is also a social role for accounting, and it can be regarded as a ‘public good’ which aims to improve the allocation of scarce resources for the welfare of society in general.

---

### Pause and think

What do you think might be the practical difficulties involved in reporting on social and environmental performance, in addition to financial performance? Who would benefit from this type of information?

---

## A brief history

Accounting originally served a stewardship function, as a result of the separation of ownership and control of resources. First wealthy landowners, and later company shareholders, hired managers or ‘stewards’ to run their properties and businesses. The landowners and shareholders owned the resources, but the stewards and managers controlled them. As the business owners could not always be on hand to watch their stewards or managers perform their duties, they required the stewards to make regular reports on their activities, using accounting to prepare the figures.

This is what we call **financial reporting**. The separation of ownership and control has grown wider and wider throughout the last century, as companies increased in number, and became larger and more complicated.

<sup>1</sup> We deal with three main business forms during this unit. Sole traders are single owners of businesses. Small shopkeepers, plumbers and electricians are often sole traders. Typically, the business owner also manages the business and is fully liable if the business is sued. Partnerships differ from sole traders because ownership is shared between more than one owner. Firms of accountants and lawyers, and doctors’ practices, are often partnerships. Companies, however, are set up quite differently. They are treated as being separate from their owners, who are called shareholders. Shareholders are often far removed from the day-to-day management of the business, and have limited liability if the business is sued. We will meet these different business forms again in Chapter 2, and see how these different types of business affect financial statements in Chapter 6.

Their owners became an increasingly distant and diverse body, often buying and selling shares on stock exchanges with no direct dealings with the company at all. As the opportunities to hide or manipulate information have therefore also increased, financial reporting by businesses to their owners has required more and more regulation.

Step by step with the increased demand for financial reporting, demand has arisen for independent audits to check the reported information. Recent accounting and auditing scandals such as that involving Enron and Arthur Andersen have thrown the problems with financial reporting into the spotlight.<sup>2</sup>

Alongside the growth in financial reporting, has been the development of the use of accounting for the benefit of the business managers themselves. The practice of using accounting information as a direct aid to management arose later than financial reporting, but is no less important. Increasing business complexity and changes to the economic environment have meant that more and more sophisticated systems of collecting and recording information are required.

In contrast to financial accounting, this information is used to help make decisions about the future, not just report on past events. Different types of information, and different tools with which to analyse it, are required.

Finally, as accounting has been recognised as a social science, the impact of the use of accounting information (whether as an aid to management, or for financial reporting purposes) on the employees of the business has been widely explored. Managers or employees who are paid salary bonuses based on figures provided by accounting systems may change their actions as a result of the incentives (or disincentives!) this provides.

---

### Pause and think

How is information required to make decisions about the future likely to differ from information required to report on past events?

---

## The changing role of accounting

Accounting is shaped by the environment in which it operates. As a result, accounting systems vary from country to country. The most obvious differences concern financial reporting, as this is the area where there are most likely to be rules and regulations in place. One of the most important issues affecting the development of accounting today is the need for internationally comparable financial information and the drive for harmonisation of accounting practices.<sup>3</sup>

Many businesses operate globally and face costs of having to prepare financial reports in different ways to satisfy different regulators. Also, investors from one country may wish to buy shares in or make loans to businesses in another country. These investors need to be able to compare all businesses fairly in order to decide where to invest their funds. In order for businesses all over the world to be treated similarly and reduce their reporting costs, different accounting regimes need to agree a common set of rules. As you can imagine, this is a difficult process, and one that is dominated by a handful of the most influential bodies.

The management uses of accounting information are also developing. Businesses face increasingly complex decisions in an increasingly complex world. Advances in technology create both new markets, and new tools and capacities for recording and analysing data.

<sup>2</sup> Audits are the main topic of unit 93 **Auditing** which you can study after you have completed this unit.

<sup>3</sup> There are many different sets of accounting rules and regulations operating in different countries. There are even 'international' accounting standards. These 'international' standards are becoming more widely accepted but many countries such as the US still prefer their own national standards. This is not discussed in this unit because you do not need to know the details of these accounting standards.

For instance, the increasing importance of social and environmental reporting means that accountants need to develop new ways of collecting, classifying and measuring non-financial data. This information may include the levels of pollutants emitted by a factory, or whether the factory meets health and safety standards. Some businesses are choosing to report this kind of information in order to avoid negative publicity or to gain business from 'green' consumers (or finance from 'ethical' investors). There is also an increasing demand for government and public sector bodies to be held accountable to tax-payers and citizens for their actions. For example, schools publish their examination results, and hospitals their waiting lists. Although social and environmental reporting are outside the scope of this unit, thinking about these issues helps us to understand the changing nature of accounting throughout time.

---

### Pause and think

Who would benefit most from, and who do you think should bear the cost of, providing information on social and environmental performance?

---

## Towards a definition

Perhaps the best way of thinking about the role and development of accounting is to consider the functions that accounting information performs. Not all of these functions have been expected or required of accounting at all times in the past, and it is likely that additional functions will be demanded in the future. Therefore, if accounting is defined by the functions it performs, you can see that this definition changes through time.

The earliest roles of accounting information were to measure and record financial transactions and provide information for stewardship purposes. At present, accounting is generally viewed as serving the following functions:

- **Recording:** accounting systems supply a means of recording data so as to enable the production of reports or for use in calculations. For example, for the preparation of financial statements, the calculation of performance indicators on which managerial bonuses are based, or for costing inventory.
- **Classification:** accounting systems assist in categorising data so as to enable the production of reports or for use in calculations. For example, identifying whether an item is an asset or an expense, or which costs should be included in inventory.
- **Measurement:** accounting systems quantify data so as to enable the production of reports or for use in calculations. For example, determining how much profit a business has earned in a year, or the value of a piece of machinery.
- **Stewardship:** accounting systems provide information which enables owners to determine how funds entrusted to managers have been used by them, and to what ends.
- **Information for decisions:** accounting systems provide information which enables users to make decisions about the future. For example, to assist investors or managers in deciding how to allocate their limited resources.
- **Monitoring and control:** accounting systems provide information which enables management to monitor performance, and take corrective action if necessary.

- **Performance evaluation and compensation:** accounting systems provide information on the performance of different individuals and parts of the business in order to determine how much managers and employees should be rewarded, according to the terms of their contracts.
- **Communication:** accounting systems provide a means by which information is transmitted to users. For example, to external users via the financial statements, or to internal users via the budget-setting process.

These functions can be divided into two types. The first three functions concern the production of accounting information. The last five functions concern the uses of the information produced.

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### Pause and think

Can you think of any other functions or uses of accounting? Which do you think are the most important, and why?

To what extent are these functions interlinked? Is it possible to achieve each function individually without also achieving at least some of the others?

---

## Accounting theory and practice

The nature of any theory is to provide a logical basis for the practice or procedure to which the theory is applied. Accounting theory has evolved over a long passage of time during which substantial changes in human behaviour and market structures have taken place.

There are two main types of accounting theory that impact the practice of accounting. **Normative** theory concerns how things should be done. For example, ideas about the meaning of economic income can influence the way in which regulators decide that accounting systems should measure profit. You will see some examples of different ideas of how profit should be measured in Chapter 8.

In contrast, **positive** accounting theory tries to explain why things are the way they are. For example, why managers choose a particular accounting method over another, or choose not to invest in research and development activities. For policy-makers to make changes to accounting systems, they not only need to know what they are trying to achieve (i.e. they need to form an opinion as to the desired outcome), they also need to understand why people are currently behaving differently and how any changes will affect them. They will refer to normative theory for the former, and positive theory for the latter.

Positive accounting theory is tested by gathering and analysing data. Usually, researchers either study a single organisation in great depth over a long period of time, or they collect a smaller amount of data about a much larger number of organisations. Analysing a single organisation may mean that the research findings are not generalisable to other organisations. However, analysing a large number of organisations to reach conclusions about the 'average' organisation, does not tell you very much about individual cases.

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## Accounting information and its uses

We have seen that financial reporting provides information to users who are not normally involved in actually running the organisation. These users are external to the business. They include actual and potential shareholders, lenders and other investors. They may also include customers, suppliers, the government, and the general public.

We have also seen that management use accounting information themselves.<sup>4</sup> Directors, other managers, and employees are internal to the business, and use information to make economic decisions (for example, which new product to manufacture, or what price to charge to a new customer).

<sup>4</sup> The information requirements of each type of user are detailed in Glautier and Underdown (2001) pp. 10–13.

External users may wish to make both economic decisions (for example, whether or not to invest their money in the business by buying shares) and legal/stewardship decisions (for example, the government needs to calculate how much tax to charge, and shareholders need to determine how well the managers have performed in managing their funds).

These different types of decisions require different types of information. There is usually a trade-off between:

- **relevant** information (that can influence decisions about the future or confirm the outcome of a past transaction); and
- **reliable** information (that is free from errors and bias and which faithfully represents economic reality).

Economic decisions need forward-looking information. This information is unlikely to be reliable as no one has a crystal ball that can predict the future with total accuracy! Legal and stewardship decisions need information about the past. It is usually important that this information is very reliable, as getting it wrong may result in fines and penalties.

---

### Pause and think

In addition to relevance and reliability, what other characteristics do you think are important for accounting information?

---

## Financial accounting

**Financial accounting** is concerned with the preparation of accounting information for the needs of users who are external to the business. Financial accounting is therefore part of financial reporting. Other aspects of financial reporting include the timing and manner in which the information is communicated. Companies publish their financial accounting information in the form of financial statements. Other forms of business do not need to publish their financial statements but are usually required to provide them to the government for taxation purposes.

In general, financial accounting information tends to be:

- prepared on a periodic basis (most companies publish their financial statements only once a year, in their **annual report**)<sup>5</sup>
- based on past events and historic data
- comprised solely of financial information
- governed by rules and regulations.

<sup>5</sup> In many countries, companies also publish interim statements for their shareholders. These statements generally contain summarised key financial information for the most recent quarter or the first six months of the financial year.

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**Pause and think**

The earliest role of financial accounting was for stewardship purposes and this function heavily influences the nature of financial accounting today. How relevant and reliable is financial accounting information likely to be? How does this relate to the needs of the different external user groups?

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**Management accounting**

**Management accounting** is concerned with the preparation of accounting information for the needs of users who are internal to the business. In general, management accounting tends to be:

- prepared frequently, as and when it is needed (most large businesses will prepare some information on a monthly basis and many use daily accounting information)
- more likely to contain forward-looking information (such as forecasts and budgets)
- more likely to incorporate non-financial information (such as quantities of products sold or numbers of customer complaints)
- not regulated (managers are free to produce whatever information they need in whatever format is most helpful to them, subject to available data and technology).

---

**Pause and think**

Why do you think financial accounting (and reporting) is governed by rules and regulations whereas management accounting is not?

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**Activity 1.1**

If you have access to the Internet, visit the web site of a large, publicly traded (listed) company such as BP plc. Find and download the most recent set of the company's financial statements. These are usually part of a larger document called the annual report, and may be in a part of the web site designed specifically for investors. Make a list of as many different groups of people who would be interested in information on the company as you can, and make a note of what kinds of information you think they would like to see reported. Now look through the annual report and determine to what extent you think these different information needs are actually being met.

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**Pause and think**

As there are many different user groups for business information, and their information needs differ, do you think that it is possible to meet all these needs in a single document? If it is possible, do you think it would be a good idea?

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**Summary**

In this chapter we discussed the role and development of accounting. Accounting produces a wide range of information for a variety of different users. These users require different types of information.

Financial accounting provides information for users who are external to the business. The information tends to be historic in nature. This is because the traditional role of financial accounting is for legal and stewardship purposes but it is increasingly recognised that many users make economic decisions based on financial reports.

In contrast, management accounting is for users internal to the business. The information provided is more likely to be forward-looking and is used to plan, monitor and control business activities.

Being based on historic data, financial accounting information is more likely to be reliable than forward-looking management accounting information. However, it is less likely to be relevant for economic decision needs.

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## Sample examination question

1.1 For two of the following groups of users of accounting information, describe their information requirements, and briefly discuss to what extent financial accounting and reporting is likely to meet their needs:

- suppliers
- employees
- company shareholders
- company directors and management
- banks
- the government
- customers.

[5 marks]

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# Chapter 2: Fundamentals of financial accounting

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## Aims and learning objectives

The aims of this chapter and the relevant reading are to:

- introduce you to financial accounting concepts, bases and policies
- explain the nature and purpose of accounting standards
- introduce the three main financial statements that appear in a set of published accounts.

By the end of this chapter and the relevant reading, you should be able to:

- explain the different accounting concepts and their application
- define accounting bases and policies, and discuss the role of accounting standards
- identify and describe the three main financial statements
- explain how these financial statements are linked together.

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## Essential reading

Glautier, M.W.E. and B. Underdown *Accounting theory and practice*. (Harlow: Financial Times Prentice Hall, 2001) seventh edition [ISBN 0273651617] Chapters 4, 5 and 6.

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## Further reading

McLaney, E. and P. Atrill *Accounting: an introduction*. (Harlow: Financial Times Prentice Hall, 2002) second edition [ISBN 0273655507] Chapter 2, and Chapter 3, pp. 57–60 only.

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## Introduction

This chapter introduces the three main financial statements that businesses prepare for financial reporting purposes. Although you will meet alternative valuation approaches in Chapter 8 of this guide, Chapters 2–7 focus on preparing and interpreting financial statements under the historic cost accounting (HCA) convention. HCA records costs, revenues, assets and liabilities at the values which apply to them on the date of the original transaction. Costs (expenses) and revenues (income) are reported in the **profit and loss account** (sometimes called the **income statement**), whereas assets and liabilities are reported in the **balance sheet**.

The profit and loss account (P&L) presents a history of the business transactions over some past period (usually a year), whereas the balance sheet (BS) presents a ‘snapshot’ of what the business owns and owes at a single point in time.

Glautier and Underdown (2001) list 10 key accounting concepts which are essential for preparing these financial statements. It is especially important at this stage that you understand the concepts of:

- going concern
- accruals

- matching
- consistency
- prudence.

In addition to these accounting concepts, this chapter also defines and explains the meaning of accounting bases and policies, and discusses the role of accounting standards in the preparation of financial statements.

Finally, this chapter will also introduce you to the third main financial statement, the **cash flow statement** (CFS). In order to understand the relationship between the CFS and the other main financial statements, you will need to have a good grasp of the **accruals concept** in particular.

**Now read:**

Chapters 4, 5 and 6 in Glautier and Underdown (2001). Chapter 4 introduces the three main financial statements and the **accruals basis of accounting**. Accruals is an extremely important concept in accounting and the general use of the term 'accruals basis' of accounting refers to the application of the accruals concept and also incorporates the 'matching' concept. Chapter 5 explains these and other key accounting concepts in detail.<sup>1</sup> Finally, Chapter 6 of Glautier and Underdown discusses accounting bases, policies and standards.

<sup>1</sup> You should note that you will meet yet another use of the term 'accruals' later in your studies, which means 'expenses incurred before the balance sheet date but not yet invoiced or paid'; because these uses are related it is easy to get confused, so make sure that you keep a careful note of the two different meanings.

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## An introduction to the financial statements

The purpose of the three main financial statements is to report the business's financial performance and position to external users of accounting information. It is important that they only reflect the transactions of the business, and not the transactions of its owner(s).

Until we reach Chapter 6 of this guide we will mainly deal with financial statements for a business with a single owner and which is *not* a company. This type of business is called a **sole trader**. Examples of sole traders are small shopkeepers, plumbers and electricians. Doctors and lawyers may also be sole traders but it is more usual for them to form **partnerships**, which have two or more owners.

Although the business is accounted for separately to the owner's personal belongings and transactions, sole traders and partnerships are not regarded as being legally separate from their owners. **Companies** are different because the business is treated as being legally separate from its owner(s) (who in this case are called **shareholders**). This means that there are more rules about the preparation of financial statements for companies, and there are also some items (such as 'share capital') that only appear in company financial statements. We will learn more about this in Chapter 6.

The three main financial statements are the **balance sheet** (BS), **profit and loss account** (P&L), and **cash flow statement** (CFS). The most common financial statement to be prepared is the BS. This shows the financial position of the business at a single point in time. However, this only tells part of the story about the business. The P&L shows the financial performance of the business over the past accounting period (usually one year) so that the profits of the business can be determined. Both of these financial statements, the BS and P&L, are prepared on the accruals basis and are closely linked to each other.

The CFS is the least common financial statement and is usually only prepared by companies. However, there is no reason why a sole trader or a partnership could not prepare a CFS, and without one, it is difficult to understand the position and performance of the business in terms of the availability and generation of cash. The CFS is prepared on a 'cash basis'.

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### Pause and think

Sole traders and partnerships are usually managed directly by their owners. This is less likely for companies. How might this explain why cash flow statements are usually only prepared by companies?

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## Balance sheet (BS)

The BS shows:

- the **net worth** of a business at a single point in time
- the **owners' equity**.

Net worth is the difference between a business's **assets** and its **liabilities**. Therefore, another name for net worth is **net assets**. Owners' equity is the claim on the business by the owner(s). It consists of the original capital invested in the business by the owner(s), and any profits (or other changes in value) that the business has made in the past which have been **retained**, or reinvested, in the business. These retained profits (or other changes in value) are known as **reserves**.<sup>2</sup>

Because the BS 'balances', the net worth and the owners' equity should be equal. This is known as the **balance sheet equation**:

$$\text{Net Worth} = \text{Owners' Equity}$$

We can use the definitions of net worth and owners' equity to rewrite this equation as follows:

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

There are many possible definitions of an asset but the usual definition is something which the business owns or controls and which will provide cash or other benefits in the future. Examples of assets are pieces of machinery, computer equipment, goods for resale (stock), cash and customers which owe the business money (**debtors**). Assets which are expected to be held for more than one year are called **fixed assets**, whereas cash or other assets which are expected to become cash within one year are called **current assets**.

Liabilities are, at their simplest, amounts that a business owes. Generally, at some point in the future it is probable that the business will have to pay out cash or other benefits as a result of a past transaction or event.

Examples of liabilities are loans from the bank, and money owed to suppliers (**creditors**). Similarly to assets, liabilities which will not be paid for at least one year are called **long term**, whereas those that will be paid in less than one year are called **current**. You may also find items called **provisions** in a balance sheet. These are either used to make reductions in the value of an asset, or for liabilities where the amount or timing of the payment is uncertain. You will see some examples of provisions later in the subject guide.

<sup>2</sup> Other reserves which may appear in financial statements include 'share premium' (when a company issues new shares for consideration greater than the nominal value of the shares) and 'revaluation reserve' (when a business recognises an increase in the value of its fixed assets).

---

### Activity 2.1

Plants 'R' Us is a small gardening shop. For the following list of items, decide whether each item is an asset, a liability, or part of owners' equity for the business. Are the assets or liabilities likely to be fixed (long-term), or current?

1. 100 plastic plant pots on sale to the public
  2. the owner's flat where she lives (this is above the shop)
  3. the cash register (till)
  4. £500 owed to Red Roses Ltd, which supplies Plants 'R' Us with potted flowers
  5. £50,000 owed to the bank for purchase of the shop
  6. the shop
  7. £25 in the cash register
  8. £2,045 in the business's bank account
  9. £40 owed by a local restaurant, which bought two window boxes of plants to display
  10. £10,000 of the owner's own money used to buy the shop fittings (e.g. shelves) and initial stock purchases.
- 

Now we can rewrite the balance sheet equation again:

$$\text{Fixed Assets} + \text{Current Assets} - (\text{Long-Term Liabilities} + \text{Current Liabilities}) = \text{Capital} + \text{Reserves}$$

We can also rearrange this equation to show the sources from which the business has obtained finance, and the uses of that finance:

$$\text{Fixed Assets} + \text{Current Assets} = \text{Capital} + \text{Reserves} + \text{Long-Term Liabilities} + \text{Current Liabilities}$$

---

### Pause and think

Make sure that you agree with each formulation of the balance sheet equation. Long-term liabilities are more permanent sources of funding than current liabilities. Are there any other ways that you can rewrite this equation, that might be more useful when thinking about the business's sources and applications of finance in the long-term?

---

The BS can be presented in a number of different ways, according to which version of the balance sheet equation you prefer. It may be presented in a **horizontal format**. In this format, all the assets are listed in one column on the left, and all the **claims** (liabilities and owners' equity) are listed in another column on the right. However, it is more usual to use a **vertical format** (especially with company financial statements). An example of the vertical format is in Glautier and Underdown (2001) on p.31.

The vertical format comes in two versions. The first version lists:

- all the assets and liabilities in the top section to arrive at the net worth (net assets); and
- owners' equity in the bottom section.

The version in the Glautier and Underdown example is the second version of the vertical format. This leaves out long-term liabilities from the top section, and includes them in the bottom section instead. This reflects the sources and applications of long-term finance in the business.

Because sole traders and partnerships have less rules about their financial reporting than companies, they can use whichever BS format they like. However, companies in the UK use the first version of the vertical format.

**Example 2.1**

With some more information about Plants 'R' Us, it would be possible to prepare the BS for the business, in the first vertical format, as follows:

Plants 'R' Us Balance Sheet

	£	£
Fixed assets		
Shop		50,000
Fixtures and fittings		<u>8,000</u>
		58,000
Current assets		
Stock	1,490	
Debtors	40	
Cash at bank and in hand	<u>2,070</u>	
	<u>3,600</u>	
Current liabilities		
Creditors	1,200	
Electricity costs incurred	<u>30</u>	
	<u>1,230</u>	
Net current assets		<u>2,370</u>
Total assets less current liabilities		60,370
Long-term liabilities		
Bank loan		<u>50,000</u>
Net assets		<u><u>10,370</u></u>
Represented by:		
Capital invested		10,000
Retained profits		<u>370</u>
		<u><u>10,370</u></u>

The two columns of numbers are used to make the BS easier to read. Lines are used wherever there is a subtotal calculated; a single underline indicates the end of an individual calculation whereas a double underline denotes the final balance. Because the BS is a 'snapshot' of the business at a single point in time, the title of the BS should also include the **date**. Finally, brackets are sometimes used to denote an amount which is to be deducted, if it makes the BS easier to read. In the above example, you could put brackets around the £50,000 figure for the bank loan.

**Net current assets** are also sometimes referred to as **working capital**, although strictly speaking cash should be excluded from this amount. It represents funds tied up in the day-to-day operation of the business. We will return to working capital in Chapter 14 of this guide.

The presentation of owners' equity is slightly different in Example 2.1 than in the Albert Trader example used in Glautier and Underdown (2001), p.31. Example 2.1 shows the initial capital investment by the owner of Plants 'R' Us separately to the 'Retained Profits' figure. This reserve contains **all** the profits retained by the business since the day the business started. This treatment is similar to the presentation of owners' equity in company accounts, where the initial owners' investment is referred to as 'share capital'. In the Albert Trader example from Glautier and Underdown, owners' equity for a sole trader is lumped together in a single figure called 'owners' capital'. The only breakdown is between the opening capital balance (at the start of the accounting period) and the profits earned during the accounting period.

---

**Pause and think**

In the absence of any other financial information, which method of presentation of owners' equity do you think gives the most information?

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**Activity 2.2**

Rearrange the BS in Example 2.1 so that it is in

- a. the horizontal format
  - b. the second vertical format.
- 

**Profit and loss account (income statement)**

Retained profits are part of the owners' equity recorded in the BS. However, the BS does not tell us how the retained profits were earned by the business. This is the job of the P&L. The P&L shows the income (revenues) and expenditure of the business over an accounting period (usually one year). It is a record of the business transactions in the accounting period.

The difference between the income and expenditure of the business is called profit. To understand how the business makes its profits, the income and expenditure is split into different categories and a number of different profit figures are reported in the P&L.

An example of a P&L is given in Glautier and Underdown (2001), p.29.

- **Gross profit** is the profit that the business earns by trading. It is the difference between sales revenue (sometimes called **turnover**) and **cost of sales**. Cost of sales is calculated as opening stock (at the beginning of the accounting period) plus purchases of goods for resale (or production costs if the business is a manufacturer), minus closing stock (at the end of the accounting period).<sup>3</sup>
- **Net profit** is the profit that the business earns after adding any additional income (such as interest receivable) and after deducting further business expenses (such as rent, wages and salaries, or heating and lighting costs).
- **Retained profit** for the year is the final profit figure, after deducting distributions to owners. Distributions to owners are called either **drawings** if the business is a sole trader or partnership, or **dividends** if the business is a company. If there are no distributions to owners, then retained profit is equal to net profit.

<sup>3</sup> Note that stock (inventory) therefore appears twice in the accounts. It appears in the BS under current assets (the stock figure on the balance sheet date), and also in the P&L. The 'closing stock' figure in the P&L is the same figure that appears in the BS. However, the 'opening stock' figure in the P&L is the figure that appeared in the **previous** BS.

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**Pause and think**

In the Glautier and Underdown (2001) example on p.29 there is a figure called 'profit before interest and tax' (PBIT). Sometimes this figure is called operating profit. It is regarded as a very important figure by some users of financial statements. Why do you think this figure is particularly helpful, and which groups of users are most likely to be interested in it?

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**The link between the profit and loss account and the balance sheet**

The final profit figure for a business, after deducting any distributions to owners, is the retained profit. The P&L explains how this retained profit is earned. The retained profit is then added to reserves in owners' equity in the BS. Therefore, assuming there are no changes to any other reserves, the

difference in owners' equity (and hence net worth) from the previous BS to the current BS, is equal to the retained profit. So the P&L explains the change in net worth from one BS to the next.

This works because both the P&L and the BS are prepared on the accruals basis. For the P&L, this means that:

- **income and expenditure is recorded in the period in which it is earned or incurred, regardless of the timing of the associated cash flows.**

So for example, sales revenue is recorded as income even when the sale has been made on credit to a customer, who has two months before they need to pay, and a purchase is recorded as expenditure even when the purchase has been made on credit from a supplier that allows a month before payment.

As well as 'matching' income and expenditure in this way to the period to which they relate, income and expenditure are also matched to each other, so that where possible expenditure is recognised in the same period in which it generates sales.

You can see that the BS is also prepared on the accruals basis, because the BS contains all the 'missing pieces' of the puzzle at any point in time. When a sale has been recorded but the customer has not yet paid up, the BS contains a debtor (receivable). When a purchase has been recorded but the supplier has not yet been paid, the BS contains a creditor (payable).

### Example 2.2

Plants 'R' Us makes cash sales to members of the public and makes sales on credit to local businesses. Local businesses have a month to settle the sales invoices they receive from Plants 'R' Us. The following information relates to the month of June:

	£
Amounts owed by customers on 1 June	630
Cash sales	3,500
Credit sales	790
Cash received from credit customers	550

How much is owed by customers on 30 June? How much will be recorded as sales for the month of June? Where would these amounts be reflected in the financial statements?

At the beginning of the month, credit customers owed £630. During the month, they paid back £550, but bought an additional £790 from Plants 'R' Us. Therefore, at the end of the month, customers owe  $£630 + £790 - £550 = £870$ . This would be shown as 'debtors' in current assets in the BS. Total sales for the month are cash sales of £3,500 plus credit sales of £790 = £4,290. This would be shown as sales (or turnover) in the P&L.

---

### Activity 2.3

Plants 'R' Us buys all of its goods on credit from various suppliers. The following information relates to the month of July:

	£
Amounts owed to suppliers on 1 July	2,180
Cash paid to suppliers	2,245
Credit purchases	2,520

How much is owed to suppliers on 31 July? How much will be recorded as purchases for the month of July? Where would these amounts be reflected in the financial statements?

---

You will see many examples of the application of the accruals (and matching) concepts in Chapter 4 of this guide. Understanding how the BS and P&L are linked together is very important for Chapter 7 and the interpretation of financial accounting information.

### Asset or expense?

Sometimes it is hard to decide whether the cost of a given item should be recorded as an expense in the P&L, or whether in fact it creates an asset that should be recorded in the BS. This is not a trivial question and some of the most debated areas of financial accounting concern whether or not costs such as research and development should be treated as assets or expenses.

Part of the problem is the definition of an asset, as this can be so vague that it could include almost anything. Under most current definitions of an asset, preparers of financial statements need to decide whether the transaction gives rise to 'rights or other access to probable future benefits'.

Sometimes, they are helped to make their decision by referring to accounting concepts, or they are told what to do by the rules in accounting standards, which we will discuss later.

---

#### Pause and think

How would you treat the cost of buying petrol for a delivery van, the cost of an advertising campaign, or the cost of training your staff to provide better customer service?

---

### Cash flow statement

The CFS is used to demonstrate sources and applications of funds over the accounting period. It provides information on the liquidity of the business as it explains what has happened to the cash balance from one BS to the next. The final balance in the CFS is this change in cash figure. You have to be careful when you work this figure out, because it is possible for a business to have a negative cash balance. This is called an 'overdraft' and is a form of short-term borrowing. Bank overdrafts appear under current liabilities in the BS, because the bank can request the business to repay the amount at any time.

The main types of sources and applications of cash that are reported in the CFS are described in Glautier and Underdown (2001) p.33, and an example is provided on p.34.

### Why cash is different to profit

As already discussed, the P&L and BS are prepared on the accruals basis. However, the CFS is prepared on a cash basis. The CFS records actual cash flows into and out of the business throughout the accounting period. In contrast, the P&L records income and expenditure matched to the accounting period in which it is earned or incurred, regardless of whether or not any cash has actually changed hands.

---

#### Activity 2.4

What is the effect on cash (i.e. increase or decrease) of the transactions described in Example 2.2 and Activity 2.3?

---

**Example 2.3**

The owner of Plants 'R' Us is preparing her accounts for the year ended 31 December 20X4. On 1 January 20X4, the business owed £450 interest on the bank loan of £50,000. The £50,000 **loan capital** will not be repaid until 20X8. On 31 December 20X4, the business owed £475 interest. The average interest rate on the loan during the year was 11%. What amounts should be included in respect of interest in each of the three main financial statements?

The BS at 31 December 20X4 will include a current liability for the interest owed (at that date) of £475.

The P&L for the year ended 31 December 20X4 will include interest expense of  $11\% \times £50,000 = £5,500$ .

The CFS for the year ended 31 December 20X4 will include interest paid of £5,475. This is calculated as £450 (owed at start of year) + £5,500 (incurred during year) – £475 (still owed at end of year) = £5,475.

---

We need a CFS as well as a P&L because they report different things, and because cash is so important to the survival of a business. It is possible for a business to be making profits but to run out of cash. This often happens to young or rapidly-expanding businesses, when it is known as 'over-trading'. If a business runs out of cash and cannot pay its staff, its suppliers, the interest on its loans, or tax to the government, it will cease to be able to trade.

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## Accounting concepts, bases and policies

You should understand the distinction between **accounting concepts**, **accounting bases** and **accounting policies**.

### Accounting concepts

It is a common misconception that financial statements can be considered as 'right', or, in other words, that there is only one 'correct' way that they should be prepared. This is especially true in the case of profit. However, there is no universally-accepted measure of profit (unlike, say, distance, although even this can be measured in different units). Because of this, accountants have developed certain broad assumptions on which the financial statements are prepared. These assumptions are known as **accounting concepts**. You should note that even these underlying assumptions are not set in stone, and different accounting regimes may also regard some concepts as more important than others, especially when they seem to conflict with each other.

Glautier and Underdown (2001) give a detailed discussion of a comprehensive list of accounting concepts. You should read Chapter 5 very carefully. In particular, you have already seen how important the accruals concept is, and you should make very sure that you understand this concept as it will be used every time you prepare a set of financial statements. In addition to the concepts in the textbook, the following three concepts are included for completeness:

- **Duality.** There are two effects from any economic event. These are reflected in accounting using the system of double-entry bookkeeping. The ultimate result is the connection between the BS and P&L: if the business makes a profit, it increases its net worth. You will see this discussed in more detail in Chapter 3.
- **Objectivity.** Accounting information should be provided in a manner that is free of bias.

- **Materiality.** Significant ('material') items should be given more emphasis than insignificant ones. An item is material if its disclosure is likely to affect users' decisions. Material items should always be disclosed in the financial statements, however, immaterial items may sometimes be excluded. Materiality is a very subjective concept as preparers have to judge what they think will be important to different users. What seems to be material to one user may be insignificant to another.

---

### Activity 2.5

Healthy Foods plc has just spent £6m on an advertising campaign. The marketing director believes that it will generate at least 10% more sales per annum (year) over the next three years. The current year's sales figure for the company is £50m. Referring to accounting concepts, discuss how this advertising expenditure should be reported in the financial statements. What are the accounting problems associated with its treatment?

Accounting concepts can be divided into several categories. First, there are **boundary rules** (entity, periodicity and going concern) which are used to determine what should and should not be reported in the financial statements. Once the boundary is set, **recording rules** determine how and when data should be recorded (money measurement, cost, realisation, accruals, matching, duality and materiality). Finally, **ethical rules** have been developed to limit the room for manipulation of data to mislead users (prudence, consistency and objectivity).

In UK accounting, the standard setting body originally stressed the importance of four key accounting concepts in the accounting standard SSAP 2 'Disclosure of Accounting Policies'. These concepts were: going concern, accruals (their definition of accruals also incorporated the matching concept), consistency and prudence. If prudence and accruals were to conflict, prudence was supposed to take precedence. This standard has now been replaced with a new standard, FRS 18. FRS 18 stresses the importance of accruals and going concern over all.<sup>4</sup>

<sup>4</sup> SSAPs are 'Statements of Standard Accounting Practice'. They were produced by the Accounting Standards Committee. This committee was replaced by the Accounting Standards Board (ASB) in 1990. New standards produced by the ASB are called Financial Reporting Standards (FRSs).

---

### Pause and think

- The concepts of accruals and prudence are quite likely to conflict with each other. Can you explain why this is so?
- What do you think the benefits of treating either accruals, or prudence, as more important, are? (Hint: consider the different characteristics of accounting information, and the needs of different groups of users.)
- Can you think of any other concepts which might conflict with each other? Which would you treat as more important, and why?

---

## Bases and policies

**Accounting bases** are the various possible methods of applying accounting concepts to the preparation of financial statements. **Accounting policies** are the specific methods chosen and applied by the business. For example, there are many different possible methods of stock (inventory) valuation. However, only one will be chosen. In many countries (including the UK) the accounting policies must be disclosed in the notes to the financial statements.

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### Pause and think

Why is it important to disclose the specific accounting policies applied?

---

## Accounting standards: advantages and disadvantages

**Accounting standards** are prepared by regulators in order to assist both preparers and users of financial statements. They usually set out rules, for example, over what may or may not be treated as an asset in the BS, or they restrict the choice of accounting policy to very few, or even just one, acceptable accounting basis. Accounting standards in the UK have to be applied by companies, and by some other entities such as charities, where there is a public interest in the financial statements. However, sole traders and partnerships do not need to follow accounting standards.

The advantages of accounting standards include:

- improved comparability between financial statements prepared by different businesses
- reduced costs to users (in terms of understanding) and preparers (in terms of applying) different accounting policies and definitions because there are fewer choices to make.

However, the disadvantages include:

- some choice is often still allowed (so it is still difficult to compare financial statements prepared under different accounting policy choices)
- if there is no choice at all, some businesses may be forced to apply inappropriate accounting policies
- it is usually hard to write accounting standards so that unscrupulous businesses cannot still find a way to manipulate or abuse the rules in order to mislead readers
- the economic and reporting environment is changing so rapidly that new accounting standards (or changes to old ones) are always being required
- new standards may be inconsistent with old standards
- it can be so difficult to get everyone to agree on a new accounting standard that compromises have to be made.

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### Pause and think

Do you think it is better to allow businesses at least some choice over their accounting policies, or none at all? Consider businesses of different sizes, in different industries.

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## Summary

This key chapter has introduced you to the three main financial statements. The remaining chapters in this section on financial accounting will teach you more about how to prepare and interpret these financial statements, and help you understand and explain their weaknesses. This chapter also defined accounting concepts, bases and policies, and briefly discussed the role of accounting standards. The concept of accruals is fundamental to the preparation of the BS and P&L. However, the CFS is prepared on a cash flow basis.

It is extremely important that you understand:

- the concept of accruals
- the link between the BS and P&L
- the difference between accruals accounting and cash flow accounting.

If you are confused about the link between the BS and P&L, it should become clearer as you work through the chapters on preparation of financial statements later in this guide. However, it would be a good idea to keep referring back to this chapter as you progress.

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## Sample examination questions

- 2.1 At the directors' meeting of Mistletoe plc at which the draft accounts for the year ended 30 September 2003 were discussed, the marketing director made the following comment:

'The cost of the recent expenditure on the mailshot and television campaign advertising our products for Christmas 2003 will benefit profits in the year ended 30 September 2004. I cannot understand why this has all been treated as an expense in the 2003 accounts.'

Evaluate this comment, making reference to any accounting concepts and principles which seem appropriate.

[5 marks]

- 2.2 Explain what you understand by the accruals concept, giving an example. Explain why this concept is important in accounting, and how it affects the three main financial statements.

[5 marks]

Your answers (to each question) are not to exceed 200 words in length. Excessive length will be penalised.

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## Chapter 3: Data processing

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### Aims and learning objectives

The aims of this chapter and the relevant reading are to:

- explain the process of recording accounting data in a business and how this data is subsequently used to generate financial statements
- provide a grounding in double-entry bookkeeping
- demonstrate the preparation and use of the trial balance
- introduce the concept of internal control.

By the end of this chapter and the relevant reading, you should be able to:

- explain the purpose and nature of the books of prime entry for recording accounting transactions
- record simple accounting transactions in ledgers using ‘T’ accounts, and document these entries using journals
- balance ‘T’ accounts and extract information for the preparation of the trial balance
- explain the relationship between debit and credit entries in the trial balance and items appearing in the balance sheet and profit and loss account (income statement)
- discuss the problems inherent in accounting systems and the importance of internal control to safeguard the completeness and accuracy of the accounting records
- identify and correct simple errors in the accounting records.

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### Essential reading

Glautier, M.W.E. and B. Underdown *Accounting theory and practice*. (Harlow: Financial Times Prentice Hall, 2001) seventh edition [ISBN 0273651617] Chapters 7 and 8, and Chapter 9, pp.110–112 only.

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### Further reading

McLaney, E. and P. Atrill *Accounting: an introduction*. (Harlow: Financial Times Prentice Hall, 2002) second edition [ISBN 0273655507] Appendix A.

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### Introduction

This chapter introduces data processing in an accounting system. Even though most businesses now employ computerised accounting systems, the underlying logic and procedures of recording transactions are identical to those applied in a manual system. There is always the possibility of error (or deliberate fraud) in the accounting data and procedures have developed to identify and prevent problems. This is known as **internal control** and will be a key theme of this chapter.

First, we return to the accounting concept of **duality** which you met in Chapter 2 of this guide. Later in the chapter you will see how the system of **double-entry bookkeeping** records the two effects of each transaction, one as a **debit** (‘DR’ or ‘Dr’) and one as a **credit** (‘CR’ or ‘Cr’). Recording each effect separately acts as a check on the other.

Next, the chapter explains that in order to reduce the likelihood of errors in the recording of financial transactions, accounting data is first recorded both in the **books of prime entry**, and in the **debtors** (sales) and **creditors** (purchases) **ledgers**.

This chapter then demonstrates the application of double-entry, how to record each transaction using **journal entries** and in **'T' accounts**, and finally how to 'balance' the 'T' accounts to prepare the **trial balance** (TB). The TB consists of two columns, one of DR balances, and one of CR balances.

If you struggle with double-entry, you can leave it and return to it later, but it is important that you understand the relationship between the DR and CR columns of balances in the TB, and items subsequently appearing in the balance sheet (BS) and profit and loss account (P&L), before you move on to subsequent chapters of this subject guide.

**Now read:**

Chapters 7 and 8 in Glautier and Underdown (2001). Chapter 7 explains accounting data processing systems and how accounting data is first generated, then recorded in the **source books** (i.e. books of prime entry) and **ledgers**. Chapter 8 describes the dual effects of every accounting transaction and how these transactions are recorded using double-entry bookkeeping. Chapter 8 also demonstrates how the TB is generated and its purpose in identifying errors. Next, Chapter 8 explains how to identify errors which are not revealed by the trial balance. Finally, read pp.110–112 of Chapter 9 in Glautier and Underdown (2001), which show how to deal with stock (inventory).

For additional material on double-entry bookkeeping and generating and using the trial balance, read Appendix A in McLaney and Atrill (2002). However, please note that McLaney and Atrill (2002) use a different method to deal with stock. It does not matter which method you use, as long as you are consistent.

---

## One transaction: two effects

You were first introduced to the concept of **duality** in Chapter 2 of this guide. This concept states that there are two effects from any economic event. So, for every financial transaction, there are two effects. Later in this chapter you will see that there is a **debit** effect, and an equal **credit** effect (being the two effects). This is easiest to see when transactions do not generate profits (or losses), as they only affect BS items.

Because the BS balances, these two effects should work in opposite directions and cancel each other out. Net assets should remain the same. However, when the P&L is affected (because a profit or a loss is made), even though there will still be two BS effects, the overall result will be that net assets has either increased or decreased. This is because the P&L is linked to the BS through the retained profit reserve. Net assets will increase if the business has made a profit, but it will decrease if the business has made a loss.

Here are some examples of BS effects:

1. Joe Smith invests £1,000 cash to start up a new business, running a small shop. The business now has cash of £1,000, and capital invested of £1,000. The business has net assets of £1,000.
2. Joe Smith uses £500 of this money to buy shelves and other fixtures and fittings for the shop. The business now has £500 less cash, but has gained £500 of fixed assets. The business still has net assets of £1,000.

3. Joe Smith uses a further £100 of the money to buy stock (inventory) to sell in the shop. The business now has £100 less cash, but has gained £100 worth of stock. The business still has net assets of £1,000.
4. The shop now sells all of the stock for £150 cash. The business now has £150 more cash, and £100 less stock. These two effects do not cancel each other. The £50 difference is the profit that Joe has made on the sale. This effect increases the retained profit reserve, in Owner's Equity. Net assets have now increased to £1,050.

We also need to consider the effects on the P&L. The P&L will only be affected when the business incurs expenses or earns income. Transactions 1 and 2 do not affect the P&L at all. However, transactions 3 and 4 do affect items which appear in the P&L.

Transaction 3 affects the P&L because stock is in the P&L as well as in the BS. Stock is part of Cost of Sales. In transaction 3, the business has made purchases of £100, and has closing stock (right after transaction 3) of £100 (the opening stock was, of course, zero as the business is brand new). But because Joe has not made any sales yet, the total Cost of Sales in this case works out as being zero, and we can see that he has not made any profit.

In contrast, with transaction 4, Joe makes a sale and also a profit. The sales affect the P&L, and the change in stock affects Cost of Sales. The two P&L effects (on sales and cost of sales) differ by £50. This £50 difference is the profit Joe has made by selling the stock.

### Example 3.1

This is what the shop's BS and P&L<sup>1</sup> would look like if we stopped and prepared them at this point:

Joe Smith Balance Sheet after transaction 4

	£	£
Fixed Assets		
Fixtures and Fittings		500
Current Assets		
Cash	550	
Net Current Assets		550
Net Asset		1,050
Represented by:		
Capital Invested		1,000
Retained Profit		50
		1,050

Joe Smith Profit and Loss Account for transactions 1 to 4

	£	£
Sales	150	
Less: Cost of Sales		
Opening Stock	0	
Purchases	100	
Less: Closing Stock	(0)	
		(100)
Profit		50

<sup>1</sup> We can ignore the CFS for the time being, because the effects of transactions on the CFS are just the change in cash.

### Activity 3.1

What would be the effects on the business if Joe Smith now bought a further £50 of stock from his suppliers, on credit (i.e. he does not have to pay the £50 cash to the suppliers immediately)? Prepare a new BS and P&L for Joe Smith's business.

---

## Recording transactions: books of prime entry

The first step in an accounting system is to **input** accounting data. Joe Smith was a very simple example with only a few transactions, so it was possible to stop and prepare financial statements after each one if we wished. But of course, in a real business there may be hundreds or thousands of transactions every day, and financial statements may only be prepared once a year.

All the accounting transactions need to be recorded in such a way that the chances of making an error, when it comes to eventually preparing the financial statements, are small. In order to identify errors, transactions are recorded in several places at the same time, so that these records can be compared later to make sure they are equal in amount.

There are three main **books of prime entry (source books)**. These are the:

- **cash book**
- **sales day book**
- **purchases day book.**

At the same time, the business will keep a number of different **ledgers**, depending on its size.<sup>2</sup> Most business will keep:

- **sales (or debtors) ledgers**
- **purchases (or creditors) ledgers.**

These ledgers are records of all the individual amounts owed by or to the business's different customers and suppliers. From these ledgers it is possible to extract lists of all the individual amounts owed or owing at any point in time.

<sup>2</sup> A 'ledger' is a name for a book (or computer document or database) that contains accounting records.

### Cash book

The cash book is used to record every cash payment that the business makes, and every cash receipt. Sometimes businesses keep separate cash books for cash at bank, and cash in hand (petty cash). Otherwise, businesses keep both records side-by-side, as in the example in Glautier and Underdown (2001) p.68. The cash payments are recorded separately from the cash receipts.

Periodically, it will be necessary to compare the cash book records with the bank statements, to make sure that nothing has been recorded incorrectly, or missed out. This is called a **bank reconciliation**.

For example, some payments will be paid regularly straight out of the bank account (in the UK these would be called 'standing orders' and 'direct debits') and it would be easy to forget to record them in the cash book. In contrast, some payments or receipts will be (correctly) recorded in the cash book, but there will be a delay before they appear in the bank statement. These will typically be payments or receipts made by cheques, which take some time to 'clear' into or out of the bank account.

At any point in time, the cash book should tell you how much cash the business has, by taking the opening cash balance at the start of the period, adding all the receipts, and subtracting all the payments. This figure can be checked with the balance on the bank statement, whilst remembering to allow for cheques and other amounts that are waiting to 'clear'. Any errors or missing items should be corrected (sometimes you may even find a mistake that the bank has made!).

Performing a bank reconciliation in this way is an example of **internal control**.

---

### Pause and think

Cash is highly susceptible to theft. In order to discover whether a theft has taken place, most businesses will make sure different members of staff perform different functions, for example one person may record cash receipts in the cash book, but a different person may perform the bank reconciliation. This is an example of segregation of duties. What other ways can you think of for businesses to try to prevent or detect the theft of assets (including cash) belonging to the business?

---

## Sales and purchases day books

These books are used to record every sale and every purchase that the business makes. Whenever the business makes a sale, the date and amount of the sale are included in the sales day book, together with the name of the customer.

Whenever the business makes a purchase, the date and amount of the purchase are included in the purchases day book, together with the name of the supplier.

It is important to record the date for each transaction, so that eventually when the financial statements are prepared, all of, and only, the transactions for the particular accounting period in question are included. The name of the customer or supplier should also be recorded, so that the records in the day books can be compared to the records in the debtors and creditors listings.

Businesses may record any other information, such as invoice numbers, in the day books, that they will find useful in order to check their records at some future date.<sup>3</sup>

## Debtors and creditors ledgers

The entries in the debtors ledger are related to the sales day book, whereas the creditors ledger entries are related to the purchases day book. The difference between the day books and the ledgers is that the ledgers divide up the data according to each individual customer or supplier. And, as well as sales or purchases, the ledgers also record the cash receipts and cash payments related to each individual customer or supplier.

Therefore, at any point in time, the ledgers can be used to provide a list of all the outstanding balances owed by or to the business, separately for each customer or supplier. Because individual cash payments and receipts are also recorded in the ledgers, the ledger entries are also related to the cash book.

The way that the cash book, day books and ledgers work together is best illustrated with an example.

### Example 3.2

Joanne Brown runs a business. On 1 March, her customers owe the following amounts:

Green Ltd	£360
Blue plc	£690
Yellow & Son	£245

On the same date, she owes her suppliers the following amounts:

First Supplies plc	£325
Second Ltd	£170

During March, the following occur:

2 March	Green Ltd pays £150
8 March	Joanne buys £260 worth of goods from Second Ltd
10 March	Yellow & Son purchase £200 worth of goods from Joanne
12 March	Blue plc pays £400

<sup>3</sup> Keeping records of information which allows the business to retrace its steps and check its records is known as keeping an **audit trail**.

## Principles of accounting

15 March	Joanne pays First Supplies plc £180
15 March	Joanne pays Second Ltd £170
20 March	Green Ltd purchases £320 worth of goods from Joanne
23 March	Yellow & Son pay £200
26 March	Joanne buys £90 worth of goods from First Supplies plc
28 March	Blue plc purchases £120 worth of goods from Joanne

All sales and purchases are made on credit. These transactions will be recorded in the books of prime entry and debtors and creditors ledgers. You should make sure that you understand where each of the following entries has come from:

### Extract from cash book:

Cash Receipts			Cash Payments		
Date	Details	£	Date	Details	£
2 March	Green Ltd	150	15 March	First Supplies plc	180
12 March	Blue plc	400	15 March	Second Ltd	170
23 March	Yellow & Son	200			
Total		<u>750</u>	Total		<u>350</u>

### Sales Day Book:

Date	Details	£
10 March	Yellow & Son	200
20 March	Green Ltd	320
28 March	Blue plc	<u>120</u>
Total		<u>640</u>

### Purchases Day Book:

Date	Details	£
8 March	Second Ltd	260
26 March	First Supplies plc	90
Total		<u>350</u>

### Debtors Ledger:

#### Green Ltd

Date	Details	£	Date	Details	£
1 March	Balance b/f <sup>4</sup>	360	2 March	Cash receipts	150
20 March	Sales	320			

#### Blue plc

Date	Details	£	Date	Details	£
1 March	Balance b/f	690	12 March	Cash receipts	400
28 March	Sales	120			

#### Yellow & Son

Date	Details	£	Date	Details	£
1 March	Balance b/f	245	23 March	Cash Receipts	200
10 March	Sales	200			

### Creditors Ledger:

#### First Supplies plc

Date	Details	£	Date	Details	£
15 March	Cash Payments	180	1 March	Balance b/f	325
			26 March	Purchases	90

#### Second Ltd

Date	Details	£	Date	Details	£
15 March	Cash Payments	170	1 March	Balance b/f	170
			8 March	Purchases	260

<sup>4</sup> The 'balance b/f' is the opening balance. 'B/f' means 'brought forward'.

---

**Activity 3.2**

In the debtors and creditors ledgers above, there would normally be a closing balance owed to or by each individual. How much does each individual customer owe Joanne at the end of March? How much does Joanne owe each individual supplier at the end of March?

---

**Getting it right: internal control**

**Internal controls** are the systems and procedures that management put in place in order to secure as far as possible the accuracy and reliability of the accounting records and to safeguard the assets of the business. It includes accounting procedures and checks, as well as segregation of duties and physical security devices. The principal objectives of an internal control system in relation to financial accounting records are to ensure that:

- the business receives all the income or revenue to which it is entitled, and this is accurately recorded in the appropriate period
- all expenditure is properly authorised and accurately recorded in the appropriate period
- all assets are properly recorded and safeguarded
- all liabilities are properly recorded, and provision is made for known, or expected, losses
- the accounting records provide a reliable basis for the preparation of financial statements
- errors and fraud are detected and dealt with promptly.

There are many different controls that businesses may put in place. How many and what type of controls will depend on the size and nature of the business. Some businesses are more prone to errors, fraud or misappropriation of assets than others, and should therefore have more controls, and check regularly to ensure that their controls are being operated properly. This job is sometimes done by an **internal auditor**.

**Bank reconciliations**

Bank reconciliations are an example of an important control that should be operated by all businesses. We discussed bank reconciliations earlier in this chapter, when we described the cash book. Comparing the cash balance from the cash book, to the cash balance in the bank statement, allows us to check to see if we (or sometimes the bank!) have made any errors in the cash book.

Differences that result from errors should be corrected. However, some differences between the two balances are acceptable and should not be corrected – these are usually to do with the delay in recognising cheque receipts and payments in the bank account. These reconciling differences should be explained in a **bank reconciliation statement**.

**Example 3.3**

The following is a summary from the cash book of a company for July 20X5:

	£
Opening balance	2,920
Receipts	26,382
Payments	<u>(26,245)</u>
Closing balance	<u>3,057</u>

On investigation you discover that:

1. Bank charges of £40 shown on the bank statement have not been entered in the cash book.
2. A cheque drawn for £125 to pay a supplier has been entered in the cash book as a receipt.
3. A cheque from a customer for £180, which was banked (and included above in receipts), has been returned by the bank, but this has not been adjusted in the company's books.
4. An error of transposition has occurred in that the opening balance in the cash book should have been recorded as £2,290.
5. Cheques totalling £285 have been sent by post to suppliers but were not presented to the company's bank until August 20X5.
6. The last page of the bank account paying-in book shows a deposit of £1,260 which was not credited to the account by the bank until 1 August 20X5.
7. The company's bank statement at 31 July 20X5 shows a balance of £982.

### Required

- a. Show any adjustments needed to the company's accounting records.
- b. Prepare a bank reconciliation statement as at 31 July 20X5.

a. The cash book balance should be:

	£
Opening balance	2,290
Receipts (26,382 – 125)	26,257
Payments (26,245 + 125)	(26,370)
Bank charges	(40)
Returned cheque	(180)
Closing balance	<u>1,957</u>

This is the figure that should appear in the company's BS.

b. Bank reconciliation statement as at 31 July 20X5

	£
Balance as per bank statement	982
Add: banking not yet cleared into account	<u>1,260</u>
	2,242
Less: cheques drawn but not yet presented to bank	(285)
Balance as per cash book (after correction)	<u>1,957</u>

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## Double-entry bookkeeping

The second part of the accounting system is **processing** data by applying double-entry bookkeeping.

As well as the debtors and creditors ledgers, a business will have a **general ledger** in which records are kept for all sorts of items in the accounts. These records are kept in the form of 'T' accounts. 'T' accounts are called 'T' accounts because they look a bit like the letter 'T'.

To summarise the information in the debtors and creditors ledgers, there will be one 'T' account for the **total** amounts of debtors' transactions and one for the **total** amounts of creditors' transactions. These special 'T' accounts are called **control accounts**. There will also be 'T' accounts for cash, fixed assets, sales, purchases, and indeed for as many different BS or P&L items as necessary. A business can have as many 'T' accounts as it needs.

Data is entered into ‘T’ accounts using **double-entry bookkeeping**. It is called ‘double-entry’ because, for each transaction, there is a **debit** (Dr) and a **credit** (Cr) effect, and each effect must be recorded. Sometimes several different Dr and Cr effects need to be recorded in different ‘T’ accounts, but the total Dr effects must always be equal in value to the total Cr effects. This is because the BS should always balance.

## Debits and credits: recording the two effects

Look back at the example of Joe Smith and Example 3.1 earlier in this chapter. Read through the list of transactions and the discussion of the effects that each transaction has on items in the BS and P&L.

### Items in the BS

We **debit** the ‘T’ account for an asset if the asset has increased. In contrast, we **credit** the ‘T’ account for an asset if the asset has decreased. We **debit** the ‘T’ account for a liability (or part of Owners’ Equity) if the liability has decreased, but we **credit** the ‘T’ account if the liability has increased. This can seem rather confusing at first so you should make sure you learn these rules.

### Items in the P&L

We **credit** the ‘T’ account for a type of income (e.g. sales) when the income is earned. In contrast, we **debit** the ‘T’ account for an income if the income has decreased (e.g. when a customer returns goods). We **debit** the ‘T’ account for an expense (or distribution to owners)<sup>5</sup> when the expense is incurred, but we **credit** the ‘T’ account if the expense has decreased (e.g. the business’s purchases decrease when the business returns goods to a supplier). You should also learn these rules.

### Example 3.4

Joe Smith’s transactions would have the following results:

1. Cash is an asset which has increased, so **debit** Cash. Capital Invested is part of Owners’ Equity. This has also increased, so **credit** Capital Invested.
2. Cash is an asset which has decreased, so **credit** Cash. Fixtures and Fittings are a type of fixed asset, which has increased, so **debit** Fixtures and Fittings.
3. There are two ways of dealing with this kind of transaction (involving the purchase of stock). McLaney and Atrill (2002) uses a different method to Glautier and Underdown (2001). Both methods are equally valid and you should decide which method you prefer. The Glautier and Underdown method would ignore the effect on stock for the time being. They would record the decrease in cash as a **credit**, and **debit** an account for Purchases (purchases are a type of expense in the P&L). The McLaney and Atrill method would ignore purchases instead! They would also record the decrease in cash as a credit, but they would record the increase in stock (an asset in the BS) as a debit.<sup>6</sup>
4. Depending on which method you use for purchases, there are two corresponding methods for recording cash sales. The first bit is easy. Under both methods, the increase in cash is recorded as a **debit**, and the sales are recorded as a **credit** (they are a type of income). If you use the Glautier and Underdown method for purchases, there is nothing else you need to do. If you follow the McLaney and Atrill method, you also need to record the reduction in the asset stock (credit Stock), and debit a new account for Cost of Sales.<sup>7</sup>
5. This is another purchase. Following the Glautier and Underdown method, we would **credit** Creditors instead of Cash (we have created a liability by

<sup>5</sup> A distribution to owners is called drawings if the owner is a sole trader or a partner. It is called dividends if the owner is a shareholder.

<sup>6</sup> Many businesses these days have ‘perpetual stock systems’ that record all changes to stock throughout the year, just like the McLaney and Atrill method. But in the past most businesses would not have kept up-to-date stock records. They would have recorded purchases following the Glautier and Underdown method, and only worked out how much stock they had once or twice a year at the balance sheet date, by counting their stock in a stocktake. Of course, businesses that keep perpetual stock records also perform stocktakes, in order to check that their records are accurate.

<sup>7</sup> The McLaney and Atrill (2002) method uses a single ‘T’ account for Cost of Sales. In contrast, the Glautier and Underdown (2001) method uses a separate ‘T’ account for Purchases, which is then later incorporated into Cost of Sales.

buying stock but not paying for it yet) and **debit** Purchases. Following the McLaney and Atrill method, we would also credit Creditors, but we would debit Stock.

### Journal entries

There is a quick way to write down the two sides (debit and credit) of each double-entry. These are called **journals**. It is important to record as much information as possible in a journal, in case you need to go back and check the details at a future date. At a minimum, they should include the date on which the entries were made in the ‘T’ accounts, the names of the ‘T’ accounts, and the value of each entry.

#### Example 3.5

Joe Smith’s transactions would be recorded in the following manner:

	£
1. Dr Cash	1,000
Cr Capital Invested	1,000
2. Dr Fixtures and Fittings	500
Cr Cash	500
3. EITHER (Glautier and Underdown)	
Dr Purchases	100
Cr Cash	100
OR (McLaney and Atrill)	
Dr Stock	100
Cr Cash	100
4. EITHER (Glautier and Underdown)	
Dr Cash	150
Cr Sales	150
OR (McLaney and Atrill)	
Dr Cash	150
Dr Cost of Sales	100
Cr Sales	150
Cr Stock	100
5. EITHER (Glautier and Underdown)	
Dr Purchases	50
Cr Creditors	50
OR (McLaney and Atrill)	
Dr Stock	50
Cr Creditors	50

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#### Activity 3.3

How would you record the transactions in Example 3.2, using journal entries to show the double-entry? It will take a long time if you record separate journals for each individual debtor or creditor, so instead record the entries for the total figures (for sales, purchases, cash receipts, cash payments, debtors and creditors) for the month of March.

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### Using ‘T’ accounts

When making the entries to ‘T’ accounts, remember that:

- debit balances always go on the left-hand side
- credit balances always go on the right-hand side.

For BS 'T' accounts, there will usually be an opening balance, called the **balance brought forward** or **brought down**. This is shortened to **balance b/f** or **b/d**. It does not matter which you use. The opening balance always goes on the 'correct' side of the 'T' account. So, for debtors, the opening balance is a debit balance, because debtors are an asset. Therefore it should be put on the left-hand side of the 'T' account. However, for creditors, the opening balance is a credit balance, because creditors are a liability. Therefore it should be put on the right-hand side of the 'T' account.

There is one account where the opening balance could go on either side – this is the 'T' account for cash at bank. If the business has money in the bank (a positive bank balance), then the opening balance is a debit because the cash is an asset. However, it is possible for businesses to have a negative bank balance. This is called an **overdraft** and it is a form of short-term borrowing. This is a liability, so the opening balance will be a credit.<sup>8</sup>

Whenever you make an entry into a 'T' account, it is important to record as much information as you can in case you need to retrace your steps (for example, to correct a mistake) at a future date. As well as recording the date of the entry and the amount, you should write the name of the 'T' account in which the other side of the double-entry is being recorded.

### Example 3.6

Joe Smith's transactions would be recorded in the following manner:

Cash			
	£		£
1. Capital Invested	1,000	2. Fixtures and Fittings	500
4. Sales	150	3. EITHER Purchases OR Stock	100
Capital Invested			
	£		£
		1. Cash	1,000
Fixtures and Fittings			
	£		£
2. Cash	500		
Sales			
	£		£
		4. Cash	150
Creditors			
	£		£
		5. EITHER Purchases OR Stock	50

EITHER (Glautier and Underdown)

Purchases			
	£		£
3. Cash	100		
5. Creditors	50		

OR (McLaney and Atrill)

Stock			
	£		£
3. Cash	100	4. Cost of Sales	100
5. Creditors	50		

<sup>8</sup> If you have your own bank account, you will know that the bank uses the words 'debit' and 'credit' to record payments and receipts, respectively, to your bank account. This is the opposite way round to the way that you should record payments and receipts in your own records. It is easy to get confused because the bank uses the terms debit and credit from its own point of view, rather than from yours!

AND (McLaney and Atrill)

		Cost of Sales	
		£	£
4. Stock	100		

Note that there are no opening balances, because the business has only just come into existence.

**Activity 3.4**

Using your answers to Activity 3.3, create the necessary ‘T’ accounts and perform the double-entry for the transactions in Example 3.2. Use the Glautier and Underdown method to account for purchases of stock. Assume that the opening balance for cash is £1,300 (debit).

**Closing ‘T’ accounts**

Closing, or ‘balancing’, a ‘T’ account is done at the end of an accounting period, when the business wants to prepare a trial balance (and presumably also a set of financial statements). It is a technical operation which gives us the figures we need for the financial statements.

The closing balances we find for the BS ‘T’ accounts will be **carried forward** or **carried down** (c/f or c/d) to become the next period’s opening balances. However, the balances on the P&L ‘T’ accounts do not get carried forward to the next period (this is a consequence of the accruals basis of accounting). Instead, they get transferred to the profit and loss account, and eventually to the Retained Profit reserve, which is a BS ‘T’ account. You do not need to make the entries to transfer P&L items to the BS Retained Profit reserve.

To close off a ‘T’ account:

- calculate the totals of the debit and credit entries in the ‘T’ account
- one total is usually greater than the other. The difference between the two totals is the closing balance
- add the closing balance to the side with the lowest total in order to make the totals of the two sides agree (balance).

This is illustrated in the cash ‘T’ account in Example 3.7 below. Sometimes, there is only one entry on each side of a ‘T’ account, for equal amounts. In these cases it would be a waste of time to close the ‘T’ account off formally (because the closing balance will be zero). When there is only one entry in a ‘T’ account, it is similarly unnecessary to write down the totals on each side. This is illustrated in the Capital Invested ‘T’ account in Example 3.7 below.

**Example 3.7**

Joe Smith’s ‘T’ accounts would be closed off as follows:

		Cash	
		£	£
1. Capital Invested	1,000	2. Fixtures and Fittings	500
4. Sales	150	3. EITHER Purchases OR Stock	100
	<u>1,150</u>	Bal c/f	<u>550</u>
Bal b/f	550		<u>1,150</u>

  

		Capital Invested	
		£	£
Bal c/f	<u>1,000</u>	1. Cash	<u>1,000</u>
		Bal b/f	<u>1,000</u>

Fixtures and Fittings			
		£	£
2.	Cash	<u>500</u>	Bal c/f
	Bal b/f	500	<u>500</u>
Sales			
		£	£
	Profit and loss a/c	<u>150</u>	4. Cash
			<u>150</u>
Creditors			
		£	£
	Bal c/f	<u>50</u>	5. EITHER Purchases OR Stock
			<u>50</u>
			Bal b/f
			50
EITHER			
Purchases			
		£	£
3.	Cash	100	
5.	Creditors	<u>50</u>	Profit and loss a/c <sup>9</sup>
			<u>150</u>
OR			
Stock			
		£	£
3.	Cash	100	4. Cost of Sales
5.	Creditors	<u>50</u>	Bal c/f
		<u>150</u>	<u>50</u>
	Bal b/f	50	<u>150</u>
AND			
Cost of Sales			
		£	£
4.	Stock	<u>100</u>	Profit and loss a/c
			<u>100</u>

<sup>9</sup> Strictly speaking, the purchases figure should first be transferred to a Cost of Sales 'T' account. In the Glautier and Underdown (2001) method, closing stocks would also have to be accounted for. The value of closing stock would be recorded as a debit in a BS 'T' account, and as a credit in the Cost of Sales 'T' account. These entries are not illustrated here but they are given in Glautier and Underdown (2001), Chapter 9, pp.110–112. The end result should be the same as that given by the McLaney and Attrill (2002) method – namely closing stock in the BS of £50, and cost of sales (a debit in the Profit and loss a/c) of £100.

### Activity 3.5

Close off the 'T' accounts from your answer to Activity 3.4.

## Control accounts: their use in internal control

Recall that debtors and creditors **control accounts** are simply 'T' accounts for debtors and creditors in total. They are prepared using data from the books of prime entry and usually checked on a monthly basis. For a given month, the total sales and purchases figures are taken from the sales and purchases day books. The total cash receipts and payments are taken from the cash book. After taking the opening balance brought forward into consideration, the closing balance carried forward on the control accounts should be equal to the total amount owed by customers or the total amount owed to suppliers, on the last day of the month.

These figures are then checked against the separate totals for all the individual customers and suppliers from the debtors and creditors ledgers. If something has been entered incorrectly in one of the data sources, but correctly in another, the two figures will not agree and the business can then investigate to discover the source of the errors.

Sometimes errors will occur that affect both sources, and in this case checking the control account in this way will not identify such errors. However, if you discover such an error, you should, of course, correct it. Example 3.8 illustrates the procedure for the debtors control account.

When the two balances are corrected, they should agree. This is called a **reconciliation**, just like a bank reconciliation.

**Example 3.8**

On 30 April, the closing balance on Joanne Brown's debtors control account is £1,422. The total she is owed according to the data for individual customers in her debtors ledger is £1,360. On further investigation, she discovers the following errors:

1. An amount of £160 received from Blue plc was correctly recorded in the debtors ledger, but was recorded as £116 in the cash book.
2. An invoice for the sale of £86 worth of goods to Yellow & Son was correctly recorded in the sales day book but was recorded as £68 in the debtors ledger.
3. An invoice for the sale of £50 worth of goods to Green Ltd was recorded twice in both the sales day book and debtors ledger.
4. A cash receipt from Yellow & Son was recorded in the debtors ledger against Blue plc.

Error 1 affects the control account via the incorrect entry in the cash book. It does not affect the debtors ledger. Error 2 affects the debtors ledger but does not affect the control account because the sales day book entry is correct. Error 3 affects both balances. Error 4 does not affect either total balance.

Joanne makes the following corrections:

	£
Original balance per control account	1,422
Less: cash receipt under-recorded in cash book	(44)
Less: invoice recorded twice	(50)
Corrected balance	<u>1,328</u>
Original total from debtors ledger	1,360
Add: sale under-recorded in debtors ledger	18
Less: invoice recorded twice	(50)
Corrected balance	<u>1,328</u>

£1,328 would be the figure for debtors appearing in Joanne's BS on 30 April.

**Activity 3.6**

On 30 April, the closing balance on Joanne Brown's creditors control account is £290. The total that she owes according to the data for individual suppliers in her creditors ledger is £399. On further investigation, she discovers the following errors:

1. An invoice for £60 goods purchased from First Supplies plc was not recorded in the purchases day book.
2. A cash payment of £40 to Second Ltd was not recorded in the creditors ledger.
3. A cash payment of £56 to First Supplies was correctly recorded in the creditors ledger, but was recorded as £65 in the cash book.<sup>10</sup>
4. An invoice for £25 goods purchased from Second Ltd was not recorded in either the purchases day book or the creditors ledger.

What is the amount that should appear as trade creditors in Joanne's BS on 30 April?

<sup>10</sup> This is known as a transposition error, as the digits have been swapped around. These errors are quite common.

**Pause and think**

Why do you think it is important to reconcile debtors and creditors control accounts on a frequent basis?

## Trial balance

The final part of an accounting system is obtaining **output**. This involves the preparation of the **Trial Balance (TB)**, and using the TB to prepare the financial statements (BS and P&L).<sup>11</sup> Once all the ‘T’ accounts are closed, the final balances are collected into two columns. The final balances for BS ‘T’ accounts are the c/f balances for the next accounting period. The final balances for P&L ‘T’ accounts are eventually transferred to the BS reserves (as retained profit).

<sup>11</sup> The BS and P&L are then used to prepare the CFS. You will see how this is done later in the subject guide.

You need to decide whether each final balance represents a debit or a credit, but you can see that the final balances are on the ‘wrong’ sides of each ‘T’ account (for example, the c/f balance for debtors is on the credit side of the ‘T’ account). So you have to imagine swapping them all over. All the debit balances are put into the left-hand column of the TB, and all the credit balances are put into the right-hand column.

If all the accounting entries are correct, the two columns of the TB should balance (equal the same total amount). This is one way of checking to see if there have been any accounting errors. However, it is possible for the TB to balance, and still contain an error.

### Pause and think

Can you explain why the two columns of the TB should balance? What kinds of error can occur, but not affect this?

### Example 3.9

Here is the TB for Joe Smith after transaction 5, using the Glautier and Underdown method:

	DR	CR
	£	£
Cash	550	
Capital Invested		1,000
Fixtures and Fittings	500	
Sales		150
Trade Creditors		50
Purchases	150	
	<u>1,200</u>	<u>1,200</u>

The TB balances, but it is missing something – it is missing closing stock. We can include closing stock in two ways. First, we can record it both as a debit (for the BS) and as a credit (for the P&L – closing stock reduces cost of sales and therefore increases profit):

	DR	CR
	£	£
Cash	550	
Capital Invested		1,000
Fixtures and Fittings	500	
Sales		150
Trade Creditors		50
Purchases	150	
Closing Stock – BS	50	
Closing Stock – P&L		50
	<u>1,250</u>	<u>1,250</u>

Alternatively, we can replace the Purchases figure with Cost of Sales, from which the P&L closing stock figure is deducted, and we will end up with the same TB as if we had followed the McLaney and Atrill (2002) method:

	DR	CR
	£	£
Cash	550	
Capital Invested		1,000
Fixtures and Fittings	500	
Sales		150
Trade Creditors		50
Cost of Sales	100	
Closing Stock – BS	50	
	1,200	1,200

**Pause and think**

Check that you agree that this last TB is identical to that which you would prepare from the 'T' accounts prepared using the McLaney and Atrill method.

**Pause and think**

Compare the TBs in Example 3.9 with the BS and P&L you prepared in Activity 3.1, for Joe Smith after transaction 5. Check that the balances in the DR column of the TB have been recorded as either assets or expenses, and that the balances in the CR column of the TB have been recorded as either liabilities or owners' equity or income.

**Notes on using the TB**

If the figures in the TB are all present and correct, they can be simply read off from the TB and placed directly into the BS and P&L. Figures in the DR column of the TB are either assets (which go into the BS) or expenses or drawings (which go into the P&L). Figures in the CR column of the TB are either liabilities or owners' equity (which go into the BS) or income (which goes into the P&L). A TB therefore provides data which is clearly structured for you to use in preparing financial statements.

You must always remember the link between the BS and the P&L. When you prepare the BS and P&L using a TB you will need to add the retained profit figure you calculate in your P&L, to the brought-forward retained profit reserve from the TB, to create the new retained profit reserve figure in the BS. In the Joe Smith example, because the business is brand new, there is no balance brought forward on this reserve, but there usually will be. This opening balance would appear in the CR column of the TB as it is part of owners' equity.

You need to be extra careful when dealing with stocks (inventory). Usually, the balance brought forward on the BS stock 'T' account at the beginning of the year (i.e. the opening stock) will still appear as a debit balance on the TB at the end of the year. This is okay because opening stock is included in the P&L as part of cost of sales (i.e. it is part of an expense). Note that because the business in the Joe Smith example is brand new, there was no opening stock.

Often, the closing stock figures will be missing (as in the first TB of Example 3.9) so we need to remember to include them in the financial statements. The information to help you to do this will be provided in the question. You will not need to rewrite the TB to do this unless you are specifically asked to do so.<sup>12</sup>

Finally, you must always be aware that there may be errors in the figures in the TB, or figures (like closing stock) which are missing because they have not yet been accounted for (recorded in the 'T' accounts). Later in this guide we will see examples of dealing with information about accounting errors or missing data when preparing financial statements. It will not be necessary to use double-entry bookkeeping and prepare 'T' accounts in order to do this.

<sup>12</sup> If you are asked to rewrite the TB to include closing stock, you should put the closing stock figure down twice, once in the DR column (to represent the asset of closing stock in the BS) and once in the CR column (to represent the effect of closing stock on cost of sales in the P&L).

## Summary

This chapter has described the processes of generating and recording accounting data and has introduced some of the methods of internal control which companies use to discover and prevent accounting errors. We have also seen that the accounting concept of duality leads to the system of double-entry bookkeeping, which records both the debit (DR) and credit (CR) effects of each transaction.

The output of double-entry bookkeeping is the trial balance (TB), which is generated from 'T' accounts in the ledgers. It is most important that you understand how the data in the DR and CR columns of the TB is used to prepare the BS and P&L; you should be able to do this even if you find performing double-entry bookkeeping itself difficult or confusing. Don't worry if you struggle with double-entry – you can leave it and come back to it at a later stage.

You should also be able to identify and correct simple errors in the accounting records, by preparing bank reconciliations or debtors and creditors control account reconciliations.

## Sample examination question

### 3.1 Westworld

Westworld is a shop which sells wild west souvenirs and memorabilia. The owner of Westworld Ltd has prepared the following trial balance as at 31 July 20X1 from her accounting records:

	DR	CR
	£	£
Cash	550	
Capital invested		1,000
Land and Buildings	50,000	
Fixtures and Fittings	500	
Mortgage <sup>13</sup>	50,000	
Sales		23,225
Trade Creditors		2,020
Stocks on 1 August 20X0	3,640	
Purchases		15,245
Wages of sales assistant	6,500	
Retained profits as at 1 August 20X0		260
	<u>111,190</u>	<u>41,750</u>

<sup>13</sup> A mortgage is a type of loan used to buy property, and which is usually secured on the property itself.

The owner does not understand why her trial balance does not balance and asks for your help. On investigation, you discover the following information:

1. Stocks held on 31 July 20X1 cost £3,380.
2. Cash in the trial balance agrees to the balance in the cash book. However, when the amounts in the cash book were added up a receipt of £100 from a customer was omitted.
3. A cheque for £40 received from a customer has not yet cleared into the bank account.
4. Bank charges of £30 for the month of July are included in the bank statement but have not yet been entered into the cash book.
5. Westworld has not yet paid mortgage interest of £500 owed for the year ended 31 July 20X1.

6. Trade creditors in the trial balance agrees to the figure on the creditors control account. However, a purchase of £470 was correctly recorded in the creditors ledger but was recorded as £440 in the purchases day book.
7. A payment of £20 to a supplier was correctly included in the cash book but was omitted from the creditors ledger.

**Required**

- a. The bank statement for Westworld reports a balance of £580 on the 31 July 20X1. Prepare a statement reconciling the bank account balance to the figure for cash in the trial balance [5 marks]
- b. The total of individual balances on the creditors ledger as at 31 July 20X1 is £2,070. Prepare a statement reconciling the balance on the creditors ledger to the figure for trade creditors in the trial balance. [5 marks]
- c. Prepare a corrected trial balance for Westworld as at 31 July 20X1. [5 marks]
- d. Explain briefly to the owner of Westworld the meaning and importance of internal control. How can preparing the trial balance, and performing regular bank and control account reconciliations, help to ensure that the figures in the financial statements are correct? [5 marks]

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# Chapter 4: Preparing financial statements 1

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## Aims and learning objectives

The aims of this chapter and the relevant reading are to:

- increase your understanding of the impact of accounting concepts and periodic measurement, on the balance sheet and profit and loss account
- explain the accounting treatment of accruals, prepayments, depreciation, bad and doubtful debts, and disposals of fixed assets
- illustrate different methods of stock valuation and their impact on the financial statements.

By the end of this chapter and the relevant reading, you should be able to:

- apply the accruals and matching concepts to the periodic measurement of income and expenses in the profit and loss account
- explain how this periodic measurement also affects the balance sheet and, in particular, calculate the values of accruals and prepayments and the carrying value of fixed assets
- demonstrate and explain the effects of different stock valuation methods on the balance sheet and profit and loss account
- demonstrate and explain the effects of depreciation and bad and doubtful debts on the balance sheet and profit and loss account
- calculate the profit or loss on disposal of a fixed asset and demonstrate the effects of the disposal on the balance sheet and profit and loss account.

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## Essential reading

Glautier, M.W.E. and B. Underdown *Accounting theory and practice*. (Harlow: Financial Times Prentice Hall, 2001) seventh edition [ISBN 0273651617] Chapters 9 and 10, and Chapter 12, pp.162–164 only.

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## Further reading

McLaney, E. and P. Atrill *Accounting: an introduction*. (Harlow: Financial Times Prentice Hall, 2002) second edition [ISBN 0273655507] Chapter 3, p.61 onwards.

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## Introduction

We can think of this chapter of the subject guide as explaining all the ‘tricky’ individual bits and pieces that need to be taken care of when preparing financial statements, in addition to recording the day-to-day transactions of the business that we dealt with in Chapter 3.

You need to be very sure that you understand the material covered in Chapter 2 of this guide, and, in particular, the accruals, matching and prudence/conservatism accounting concepts.

The **accruals basis of accounting** incorporates both the accruals and the matching concepts and means that:

1. income and expenses are recognised in the P&L in the period in which they are earned or incurred
2. costs (expenses) are recognised in the P&L in the same period as the income they help to generate.

This is not always easy and you will see in this chapter that businesses may need to choose between different methods that give different financial statement results.

Finally, you should be careful because in this chapter you will see the word ‘accruals’ used in a different way. **Accruals** is also used to mean ‘expenses incurred before the balance sheet date but not yet invoiced or paid for’ and, used in this sense, it appears as a current liability in the BS. Try not to confuse the two different meanings.

Take your time and work slowly through this chapter as there is a lot to take in.

**Now read:**

Chapters 9 and 10 in Glautier and Underdown (2001) and pp.162–164 in Chapter 12. Chapter 9 discusses the periodic measurement of income and expenses under the accruals basis of accounting, and how this affects the financial statements. Chapter 10 extends this discussion to the treatment of losses in balance sheet value, for example as fixed assets are used up over time, or when debtors are unable to pay.

Both chapters demonstrate the accounting using double-entry bookkeeping and ‘T’ accounts. However, it is most important for you to understand the end result in terms of the figures appearing in the financial statements. It is perfectly okay, and quicker in an examination situation, to prepare a set of financial statements reflecting the situations introduced in this chapter **without** going through the double-entry. You may prefer the approach in McLaney and Atrill (2002) if you have problems understanding the double-entry.

Finally, the pages specified in Glautier and Underdown (2001) Chapter 12 describe three different methods of valuing stocks (inventory).

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## Inventory, purchases and sales

Sales revenues are usually the biggest item of income for any business, and sometimes the only income. Therefore, how we treat sales, and the associated expense of the stock (inventory) which is sold (the **cost of sales**), is very important.

As financial statements are normally prepared on a periodic basis, we must first determine which sales should be recognised in each particular period according to the accruals concept, that is, sales are recognised in the period in which they are earned (when the business has the right to receive cash).<sup>1</sup> Remember that for credit sales this will be before the cash is actually received.

Next, the matching concept states that we should recognise the expenses incurred to earn those sales in the same period as we recognise the sales. The most important expense related to sales is the cost of sales. The biggest component of this is usually the purchases that the business has made during the period.<sup>2</sup>

However, we cannot just use the purchases figure, because some of the stock sold during the period would have been owned by the business at the start of the period, and some of the stock purchased during the period will not be sold until the period after. This is why the purchases figure is adjusted to take account of the change in stocks held during the period, to arrive at the cost of sales figure:

$$\text{Cost of Sales} = \text{Opening Stock} + \text{Purchases} - \text{Closing Stock}$$

<sup>1</sup> *The realisation and prudence concepts are important in deciding the precise moment when the business actually has the right.*

<sup>2</sup> *Be careful! The purchases referred to here are purchases of stock (inventory). **Never** include purchases of fixed assets in this figure. Purchases of fixed assets are **capital expenditure** so the acquisition cost of the fixed asset is capitalised (recognised as an asset) in the BS.*

---

**Pause and think**

Businesses usually recognise a sale when the goods or services concerned have been delivered to, or performed for, the customer. With some kinds of businesses, it can be difficult to see exactly when this occurs. When would you recognise the sales of

- a. a desktop computer
  - b. an agreement to repair the computer if it becomes faulty at any time over the next two years, which the customer pays for on the same day she buys the computer
- in the annual financial statements of a computer store?
- 

**Closing stock (inventory) in financial statements**

Look back at the examples of financial statements (BS and P&L) in Chapter 2 of this guide and on pages 29 and 31 of Glautier and Underdown (2001). Closing stock appears as both a current asset in the BS, and as part of cost of sales in the P&L. Any closing stock that is still owned by the business at the balance sheet date has clearly not been sold, so the cost of purchasing it cannot be part of the cost of sales. This is why we deduct this figure when we calculate cost of sales. In trial balance terms, there is a DR in the BS for the current asset, so the other side (in the P&L) must be a CR (a reduction in the expense of cost of sales).<sup>3</sup>

In contrast, opening stock only appears in cost of sales in the P&L. It is likely that all of the opening stock was sold during the period, so we include it all in cost of sales. However, if any of the opening stock has not been sold by the end of the period, don't worry – it will also be included in the closing stock figure and automatically adjusted in the cost of sales calculation.

---

**Pause and think**

What are the implications for the business if it has stock that remains unsold for more than a year? Think about the accounting concepts. Should this stock still be included as an asset in the BS? If so, at what value?

---

**Trading account**

The top part of the P&L is sometimes called the **trading account**. At the top is sales revenue (sometimes called **turnover**), followed by cost of sales. The difference between these two amounts is the **gross profit**. This is the profit that the business makes by selling its goods or services at a higher price than the direct costs of buying, making or providing them. All other income and expenses are reported lower down the P&L.

---

**Pause and think**

Why do you think that the gross profit figure is reported separately in this way? Which users of financial statements might be interested in this figure, and what do you think they would use it for?

---

**Example 4.1**

Mr Shaw received an order from Miss Yung to deliver 500 kg of packaging materials on 24 September 20X4. The goods and invoice were despatched on 28 September 20X4 but Miss Yung did not pay until 5 October 20X4. Mr Shaw prepares the financial statements of his business for each year ended 30 September. The delivery on 28 September 20X4 is regarded as a sale in the accounting year ended 30 September 20X4 even though Miss Yung did not pay for her purchase until after the year end.

<sup>3</sup> In Chapter 3, you saw that there were different ways that a business could record stocks in its ledger ('T') accounts. Traditionally, stocks were counted and valued once a year (at the end of the accounting period) and the Glautier and Underdown (2001) method would be used. However, with the advent of computer systems, many businesses now keep perpetual stock records which provide a running total of stocks held throughout the year. You can think of this as keeping a stock 'T' account similarly to the method used in McLaney and Attrill (2002).

In total, Mr Shaw despatched packaging materials worth £467,320 during the year ended 30 September 20X4. In the same period, he purchased packaging materials from his suppliers worth £254,789. On 1 October 20X3, Mr Shaw had packaging materials in stock that had cost him £24,530 to buy. On 30 September 20X4, Mr Shaw had a stock of packaging materials worth £27,244. His trading account for the year ended 30 September 20X4 is as follows:

Mr Shaw Trading Account for the Year Ended 30 September 20X4

	£	£
Sales		467,320
Less: Cost of Sales		
Opening Stock	24,530	
Purchases	254,789	
Less: Closing Stock	<u>(27,244)</u>	
		<u>(252,075)</u>
Gross Profit		<u>215,245</u>

### Valuation of closing stock

The calculation of cost of sales, and therefore gross profit, clearly relies on the valuation of closing stock.<sup>4</sup> There are two important things to think about when valuing stock. First, whether the stock is still in a condition that allows it to be sold for a profit (or at all), and second, what each item of stock originally cost.

<sup>4</sup> Remember that the opening stock in any period is simply the closing stock of the previous period!

First, let us suppose we know what each item originally cost. The cost concept tells us that we should value stock at what it cost the business to buy (or make) it.<sup>5</sup> But sometimes the stock becomes damaged or obsolete, and it cannot be sold. At other times, the market for the product may change in such a way that the best price the business can achieve when it sells the product is very low, lower even than the original cost.

<sup>5</sup> You will see how businesses calculate the cost of goods which they produce themselves in Chapter 10 of this guide.

In such cases the prudence concept tells us it would be wrong to value the stock at its original cost. Instead, the stock should be valued at what it can be sold for, less any further costs that must still be incurred in order to make the sale. This is called the **net realisable value**. The rule can be summarised as ‘stock should be valued at the lower of cost and net realisable value’.

#### Example 4.2

The owner of Plants ‘R’ Us is preparing her accounts for the year ended 31 December 20X4. She has prepared a list of stock in her shop on the balance sheet date, but is unsure how to value the following items:

Description	Quantity	Purchase price per item	Expected sales price per item	Note
		£	£	
Potted roses	5	3.99	2.99	1
Plastic plant pots	45	0.40	0.50	
Bay trees	3	24.75	28.75	2

#### Notes

1. The potted roses have been in the shop for some time and have already finished flowering. They can only be sold at a discount.
2. In order to sell the bay trees, the owner will need to repot them as they have outgrown the containers they are currently in and do not look very attractive. She estimates the new pots will cost a further £5 for each tree.

The owner should value the potted roses at their net realisable value of £2.99 each as this is lower than the original cost of £3.99 each. The plastic plant pots should be valued at their cost of £0.40 each. The bay trees should also be valued at the lower of cost (£24.75) and net realisable value, which in their case is £28.75 – £5 = £23.75.

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**Activity 4.1**

What is the total value of the stocks in Example 4.2?

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The second concern when valuing stock is how to work out what the original cost was, when the business buys and sells large quantities of identical items and the purchase price of these items has changed during the accounting period. Suppose you run a home improvements shop that buys and sells screws. Whenever you receive an order of screws, you just tip them into a big box where they become mixed up with the screws you already have.

Whenever you sell screws, you just dig out however many the customer wants, and it is impossible to tell which specific screws you are selling.

In order to work out the original cost of the remaining screws at the end of the accounting period, we need to make some assumptions about the screws that were sold. There are three different methods that may be used: first-in, first-out (**FIFO**); last-in, first-out (**LIFO**), and weighted average cost (**WAC**). These methods are explained on pp.162–164 of Glautier and Underdown (2001). When the purchase price changes during the accounting period, these methods give different results.

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**Activity 4.2**

Date		Units	£/item	Units remaining
1 January 20X5	Opening stock	50	3	50
4 January 20X5	Purchases	45	2.80	95
10 January 20X5	Sales	30	5	65
12 January 20X5	Sales	25	5	40
15 January 20X5	Purchases	10	2.50	50
21 January 20X5	Sales	40	5	10
27 January 20X5	Purchases	20	2.60	30

What is the value of closing stock on 31 January 20X5, under FIFO, LIFO and WAC? Prepare the trading account for the business for the month of January 20X5, under each method of stock valuation.

---

**Pause and think**

In the UK, companies are allowed to use either FIFO or WAC, but they are not usually allowed to use LIFO. Look at your answers to Activity 4.2 and the example in Glautier and Underdown (2001). Can you suggest any reasons why LIFO is not allowed?

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**Accruals and prepayments**

Applying the accruals concept to the P&L means that all of, and only, expenses relating to the accounting period in question, should be recognised (included) in the P&L. However, these expenses will not always be paid during the accounting period to which they relate.

Expenses such as electricity, heating and lighting costs, are typically incurred before they are paid, because electricity bills only arrive after the business has used the electricity. These expenses are paid **in arrears**.

In contrast, expenses such as rent and insurance are often paid **in advance**.

When the cash payments happen in the ‘wrong’ accounting period, we need to make sure that we calculate the correct figure for the expense to appear in the P&L. Because the cash paid during the accounting period will not usually be equal to the P&L charge for the expense, the difference appears in the BS as either an **accrual** or a **prepayment**.

---

**Pause and think**

Look back at Activity 2.3 and Example 2.3 in Chapter 2 of this guide. These were designed to get you to think about the differences between cash payments and the charges for expenses appearing in the P&L. They also illustrate the effect on the BS. If you are confused about the links between the P&L and BS and the working of the accruals concept, you should work through that section of Chapter 2 again.

---

**Treatment of accruals**

If the business has incurred an expense at the accounting period end, but has not paid for it yet, it must be included as a liability in the BS. Purchases of inventory stock which are still owing at the BS date are called **trade creditors** and appear under current liabilities.<sup>6</sup> Expenses such as electricity which are paid in arrears, and for which no bill has been received at the BS date, also appear under current liabilities but are called **accruals**. This is a different meaning of the word 'accruals' although you can probably see that it is very much related to the accruals concept.

We need to work out what figure should appear in the P&L in respect of the charge for the accounting period in question, and what figure should appear in the BS on the BS date. We need to look at any amounts owing at the start of the accounting period, what was paid during the accounting period, and what was still owed at the end of the accounting period.

**Example 4.3**

On 5 October 20X1, Bristol Industrial Company Ltd received an electricity bill for £560 for the quarter ended 30 September 20X1. Bristol Industrial Company Ltd makes up its accounts to 30 September each year. On 30 September 20X0, the company owed electricity costs of £420. During the year, cash payments of £1,620 were made to the electricity company.

The P&L for the year ended 30 September 20X1 should include a charge of £1,760 for electricity. The BS as at that date should include an accrual of £560 under current liabilities. The P&L figure can be calculated in two different ways:

Without using 'T' accounts:	£
Amount paid during year	1,620
Amount owed at end of year	560
Less: amount owed at start of year	<u>(420)</u>
P&L charge for the year	<u>1,760</u>

With 'T' accounts:<sup>7</sup>

Electricity Expense (P&L)			
	£		£
Cash <sup>8</sup>	1,620	Electricity Accrual	420
Electricity Accrual	<u>560</u>	P&L a/c	<u>1,760</u>
	<u>2,180</u>		<u>2,180</u>
Electricity Accrual (BS)			
	£		£
Electricity Expense	420	Bal b/f	420
Bal c/f	<u>560</u>	Electricity Expense	560
	<u>980</u>		<u>980</u>
		Bal b/f	560

<sup>6</sup> Generally, any expense which has actually been billed or invoiced (but not paid) for before the BS date is called a creditor. Purchases of goods are part of trade creditors, whereas other purchases or expenses are usually called 'other creditors'.

<sup>7</sup> You will see that my treatment of these 'T' accounts is different to that in Glautier and Underdown (2001). I think that it is easier to understand what is going on if you use separate 'T' accounts for the expense in the P&L, and the BS effect. Glautier and Underdown combine my two 'T' accounts into a single 'T' account. This saves space, but I think it is confusing.

<sup>8</sup> To save space I have not shown the cash 'T' account.

The amount owed at the start of the year (£420 in this example) is part of the expense for the year ended 30 September 20X0.

## Treatment of prepayments

In contrast, some expenses are paid in advance, before they are incurred. If the business has paid an expense before the accounting period end, but will not receive the benefit until the following accounting period, there will be an asset in the BS. This asset is called a **prepayment** and appears under current assets. The name 'prepayments' is easy to remember because it relates to payments in advance.

### Example 4.4

Bristol Industrial Company Ltd paid its annual buildings insurance of £4,000 in advance on 30 June 20X1. The annual insurance paid on 30 June 20X0 was £2,700.

The expense that should appear in the P&L for the year ended 30 September 20X1 should be  $9/12 \times £2,700 + 3/12 \times 4,000 = £3,025$ . This is because the insurance costs for the first nine months of the year from October 20X0 to June 20X1 (inclusive) are included in the £2,700 payment made on 30 June 20X0, and the last three months of the year (July 20X1 – September 20X1 inclusive) are included in the £4,000 payment made on 30 June 20X1.

The BS as at 30 September 20X1 should include a prepayment of  $9/12 \times £4,000 = £3,000$  under current assets. A figure of  $9/12 \times £2,700 = £2,025$  would have appeared as the prepayment in the BS as at 30 September 20X0.

Without using 'T' accounts:	£
Amount prepaid at start of year	2,025
Amount paid during year	4,000
Less: amount prepaid at end of year	(3,000)
P&L charge for the year	3,025

### With 'T' accounts:<sup>9</sup>

Insurance Expense (P&L)			
	£		£
Insurance Prepayment	2,025	Insurance Prepayment	3,000
Cash	4,000	P&L a/c	3,025
	<u>6,025</u>		<u>6,025</u>

Insurance Prepayment (BS)			
	£		£
Bal b/f	2,025	Insurance Expense	2,025
Insurance Expense	3,000	Bal c/f	3,000
	<u>5,025</u>		<u>5,025</u>
Bal b/f	3,000		

<sup>9</sup> Again, I have used two separate 'T' accounts whereas Glautier and Underdown (2001) combine these into a single 'T' account.

### Activity 4.3

Mr Shaw rents premises for his business and pays rent in advance on 1 July annually. Suppose he paid £12,000 on 1 July 20X4 and £10,900 on 1 July 20X3. What will appear in respect of rent in his P&L for the year ended 30 September 20X4, and his BS as at that date?

Although accruals and prepayments usually arise with expenses, Glautier and Underdown (2001) also discuss the treatment of accruals of income on pp.103–104. Income that is owed to the business may be from customers who have bought goods

but not yet paid for them; these are simply **trade debtors** and we already know that they appear as a current asset in the BS. But businesses may also receive other income, such as rent from property, or interest on savings. If this income is outstanding (owed) at the BS date, then it also appears as a current asset in the BS, and the 'correct' figure for the income earned during the whole of the accounting period should appear in the P&L.<sup>10</sup>

## Bad and doubtful debts

Another practical application of the accruals concept is making **provision** for bad and doubtful debts.<sup>11</sup> The cost of making the provision is normally charged against profit in the period in which the debt is first considered to be bad or doubtful, in accordance with the prudence concept.

This may appear strange because the matching concept would imply that the cost should be charged in the period in which the sale was originally made. However, we do not do this because it is accepted that accounting relies upon making certain estimates and that these may subsequently turn out to be wrong. If we had to restate previous years' profits every time one of our estimates turned out to be wrong, it would be very confusing for users of the accounts, and in most cases the amounts involved are immaterial (although, in the rare cases that they are material, then it would be better to restate the previous years' accounts).

A **bad debt** occurs when we believe that a debtor is unable or unwilling to pay and that the business will never be able to recover the money owed. For example, the debtor may be a business that has gone into bankruptcy, or an individual who has left the country without providing a new contact address. In these circumstances we **write-off** the debt. Usually, only specifically identified amounts will be regarded as bad debts.

A **doubtful debt** occurs when we believe that a debtor is unlikely to be able or willing to pay. There is either still a chance that the money will be recovered, or we are not sure exactly which customers are not going to pay us, but we know from experience that a certain percentage are likely to default. We **provide** for doubtful debts, and these provisions may relate either to specific amounts, or they may be general (based on a percentage of the total debtors balance).

## Effect on the balance sheet

Bad and doubtful debts both reduce the value of debtors on the BS. However, they do so in different ways. Writing-off a bad debt simply involves deducting the amount of the bad debt from the debtors balance directly. In double-entry terms, this would be achieved by a CR to the debtors control 'T' account (and to the individual customer's ledger).

In contrast, providing for a doubtful debt involves creating a new balance called the **provision for doubtful debts**, or adjusting the value of the provision if one already exists. The provision for doubtful debts appears as a separate CR balance on the TB, and is deducted from the debtors figure in the BS.<sup>12</sup>

## Effect on the profit and loss account

Writing-off a bad debt always creates an expense in the P&L for the amount of the debt written off. In double-entry terms, because there is a CR to the debtors 'T' account, there must be DR to a P&L expense 'T' account.

Creating a new provision for doubtful debts will also create an expense in the P&L. This expense can either be shown separately (as **doubtful debt expense**) or included with the **bad debt expense**. However, if a provision for doubtful debts already existed at the previous BS date, then adjusting the figure to

<sup>10</sup> Glautier and Underdown (2001) illustrate the accrual of income using 'T' accounts in Example 2 on pp. 103-104. Unfortunately, the method that they use is the same confusing method that they use for expenses. I think it would have been better to use two separate 'T' accounts, one for the rent receivable income in the P&L, and one for the accrued rent receivable asset in the BS. When the rent receivable income for December falls due on 1 December, this should be entered as a CR in the P&L 'T' account (it is income), and a matching DR in the BS 'T' account. When the rent is finally received on 1 January, the double-entry is a DR in the cash 'T' account, and a CR in the BS 'T' account.

<sup>11</sup> You will see that the word 'provision' is used either to represent valuation adjustments, or to represent particular types of liabilities where the amount, timing or even occurrence of the eventual cash outflow is uncertain. In this case the provision for doubtful debts is a valuation adjustment, and it is deducted from the value of debtors in the BS rather than appearing separately as a liability near the bottom of the (vertical format) BS. Other provisions which are valuation adjustments include the provision for accumulated depreciation.

<sup>12</sup> Sometimes this is called the 'provision for bad and doubtful debts'. Be careful not to get confused – it is still only used for debts which are doubtful and not for debts which are already believed to be bad.

whatever new provision is required at the current BS date may create either an expense, or an income in the P&L (you can think of this 'income' as a negative expense).

It is only the **change** in the provision for doubtful debts which is recognised in the P&L, and this change could either be an increase (in which case there is a cost in the P&L) or a decrease (in which case there is an income).

#### Example 4.5

The following entries appear in a company's TB at 30 April 20X9, which is its accounting year end:

	DR	CR
	£	£
Trade debtors	62,350	
Provision for bad and doubtful debts at 1 May 20X8		2,820
Debts of £2,350 are considered to be bad. Five per cent of the remaining debtors are considered to be doubtful.		

The entries in the financial statements for the year ended 30 April 20X9 would be as follows:

<b>Balance sheet (under current assets)</b>	£	£
Trade debtors (62,350 – 2,350)	60,000	
Less: provision for bad and doubtful debts (5% x 60,000)	<u>(3,000)</u>	
		57,000
<b>Profit and loss account (under expenses)</b>		
Bad debts written off		2,350
Increase in provision for bad and doubtful debts (3,000 – 2,820)		180

#### Activity 4.4

In Example 4.5, what figures would have been included in the financial statements if only three per cent of the remaining debtors had been considered doubtful?

## Depreciation of fixed assets

When a business acquires an asset to be used for more than one year, it appears in the BS as a fixed asset.<sup>13</sup> These assets are expected to be used by the business for a number of years – this is called the **useful economic life** (UEL). At the end of the asset's UEL, it may have some **residual value**, for example it may be able to be sold on as scrap. During the UEL, the value at which the asset appears in the BS is gradually reduced until it is equal to the residual value at the end of the UEL. This reduction is called **depreciation**.<sup>14</sup>

### An application of the matching concept

The rationale for depreciating assets is **not** to reflect changes in their market value over time. Depreciation is an application of the matching concept.<sup>15</sup> It aims to match the cost of buying the asset to the revenue or other benefits generated by its use. You can also think of it as a measure of the use or wearing out of the asset over time.

There are many methods that may be used to calculate depreciation. Ideally, the method chosen should be the one which most closely matches the cost to the pattern of benefits obtained. However, most businesses are content to use one of two main methods, **straight-line depreciation** and **reducing balance depreciation**. These methods will only give an approximation of the actual pattern of use of the asset, however, the differences involved should be immaterial.

<sup>13</sup> Expenditure to buy fixed assets is called **capital expenditure** because the cost of the fixed asset is capitalised – recorded as an asset in the balance sheet.

<sup>14</sup> Depreciation is the name given to the reduction for tangible fixed assets. However, the term **amortisation** is usually used for the reduction of intangible assets, such as leases on buildings, patents or licenses.

<sup>15</sup> As financial statements are prepared under the historic cost convention, the balance sheet value of an asset or liability at any point in time does not usually equal the 'current' or 'market' value of that asset or liability. The term 'value' must always be used with extreme care.

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**Pause and think**

Land is never depreciated, unless it is mined so that minerals or other material are extracted from the ground. Why do you think this is so?

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**Straight-line depreciation**

Straight-line depreciation should be used when the pattern of benefits from the fixed asset is expected to be steady and unchanging over time. The total cost of using the asset (the difference between its original cost and its residual value) is spread evenly over the asset's UEL. It is calculated as:

$$\text{Annual depreciation charge} = \frac{\text{Acquisition cost} - \text{Estimated residual value}}{\text{Expected UEL in years}}$$

Freehold buildings (owned outright) and leasehold buildings are often depreciated in this way.

**Example 4.6**

A piece of machinery is bought at a cost of £56,000 on 1 January 20X0, the first day of a company's accounting year. Its estimated useful life is 10 years, after which time it is expected it will have a scrap value of £6,000.

The annual straight-line depreciation charge for the machinery is:

$$\frac{£56,000 - £6,000}{10} = £5,000$$

An alternative way of expressing this straight-line depreciation would be 'at a rate of 10 per cent per annum'. This is because £5,000 is 10 per cent of £50,000 (being the difference between the cost of acquisition and the residual value).

**Reducing balance depreciation**

Reducing balance depreciation should be used when the asset is expected to produce more benefits in the early years of its life, than in its later years. Instead of resulting in a constant depreciation charge each year, a reducing balance depreciation charge is greater in the first year and gets smaller and smaller each year until the residual value is reached. Reducing balance depreciation is always expressed as a percentage rate. If  $x$  is the percentage rate, the annual depreciation charge is calculated as:

$$\text{Annual depreciation charge in year } n = x \times \text{NBV of asset at start of year } n$$

The **NBV** is the **net book value** of the asset. This is the carrying value of the asset in the balance sheet. It is the difference between the original cost of the asset, and the accumulated depreciation provision to date:

$$\text{NBV} = \text{Cost} - \text{Accumulated Depreciation}$$

**Example 4.7**

Given the information in Example 4.6, the annual depreciation charges for depreciation using the reducing balance method at a rate of 20 per cent would be:

Year	Opening NBV £	Depreciation Charge £	Closing NBV £
1	56,000	11,200	44,800
2	44,800	8,960	35,840
3	35,840	7,168	28,672
4	28,672	5,734	22,938
5	22,938	4,588	18,350
6	18,350	3,670	14,680
7	14,680	2,936	11,744
8	11,744	2,349	9,395
9	9,395	1,879	7,516
10	7,516	1,503	6,013

Notice that the opening NBV in year 1 is just the acquisition cost of the machinery. In subsequent years, the opening NBV in each year is just the closing NBV from the previous year.

In this example, 20 per cent was chosen as the reducing balance depreciation rate as it resulted in the desired effect of reaching the residual value of £6,000 after a useful life of 10 years. Glautier and Underdown (2001) provide a formula for working out the appropriate rate for reducing balance depreciation on p.122, but you do not need to know this formula.

It is sometimes suggested that the reducing balance method of depreciation is preferable to the straight-line method for certain assets such as motor vehicles, because it reflects that these assets lose more of their market value in the early years than they do in their later years.

This argument is presented in Glautier and Underdown (2001) but you must be very careful if you try to use this argument yourself – remember that the aim of depreciation is **not** to reflect the fall in market value of an asset, but rather to match the cost of acquiring the asset to the benefits obtained from using the asset over its life. Glautier and Underdown (2001) justify the use of the argument on the grounds that, as the asset ages, more is spent on maintenance cost, so the total annual charge for maintenance (increasing over time) and reducing balance depreciation (decreasing over time) is roughly constant. Therefore you might justify using the reducing balance method in such a case if you believed that the benefits from using the asset are also constant over its life.

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#### Activity 4.5

For both Examples 4.6 and 4.7, what would be the depreciation charge for the machinery in the accounting years ended 31 December 20X0, 20X2 and 20X6 if the machinery was bought on 1 July 20X0 instead of 1 January 20X0?

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#### Effect on the balance sheet

A **provision for (accumulated) depreciation** is created. This provision is a valuation adjustment (like the provision for doubtful debts) and its value is deducted from the cost of the fixed assets in the BS. It is a CR balance in the TB. Because this is a cumulative balance, each year the provision for depreciation is increased by the depreciation charge for that year. In the BS, this provision is deducted from the original cost of the fixed asset to give the NBV.

#### Effect on the profit and loss account

At each BS date, the depreciation charge for the year is calculated. The effect on the BS is to add this charge on to the provision for depreciation. This would be a CR in double-entry terms. The other side of the double-entry must therefore be a DR. This is the depreciation expense, which is charged to

the profit and loss account. It is **very important** to remember that the depreciation charge appearing in the profit and loss account is just the depreciation charge for the year in question.<sup>16</sup>

<sup>16</sup> This is similar to the doubtful debt expense in the P&L, which is equal to the change in the provision for doubtful debts in the BS.

#### Example 4.8

From the information in Example 4.6, the figures appearing in the financial statements of the company at 31 December 20X0 would be:

<b>Balance sheet (under fixed assets)</b>	£	£
Machinery at cost	56,000	
Less: provision for depreciation	<u>5,000</u>	
NBV		51,000
<b>Profit and loss account (under expenses)</b>		
Depreciation on machinery		5,000

At 31 December 20X1 these figures would be:

<b>Balance sheet (under fixed assets)</b>	£	£
Machinery at cost	56,000	
Less: provision for depreciation (5,000 + 5,000)	<u>10,000</u>	
NBV		46,000
<b>Profit and loss account (under expenses)</b>		
Depreciation on machinery		5,000

#### Activity 4.6

What would be the figures appearing in the financial statements of the company at 31 December 20X0 and 20X1, using the information in Example 4.7?

#### Pause and think

Compare your answers to Activity 4.6 with the figures in Example 4.8. Using a different method of calculating depreciation changes the figures which appear in the financial statements. What are the implications of such choices for external users of financial statements (who only see the published financial statements and not the underlying information)? Imagine you are preparing the accounts of a business that wishes to borrow a large amount of money from a bank. Which method of depreciation would you choose?

## Disposal of fixed assets

Businesses often dispose of their fixed assets. When they do so, they will usually make either a profit or a loss on the disposal. This will be included in the P&L in the year of the disposal.

To make things simpler, it is usual not to calculate or charge any depreciation for the asset being disposed, in the year of disposal.

### Effect on the balance sheet

Once an asset has been sold and is being used by someone else, it no longer belongs to the business and it should no longer appear on the BS. Therefore, both the original cost, and the accumulated depreciation related to that asset, should be removed.<sup>17</sup>

<sup>17</sup> Unless you are told that it has not yet been accounted for, the cash proceeds from the sale should be already included in the cash balance. You will see later that the cash proceeds from the sale will be appear as a cash inflow in the CFS.

### Calculating the profit or loss on disposal

Glautier and Underdown (2001) present the double-entry for dealing with the disposal of fixed assets on pp.126–127. The asset realisation account is used to calculate the profit or loss on disposal. Unless you are specifically

asked to demonstrate the double-entry, you are likely to find it quicker to calculate the profit or loss on disposal in the following way:

$$\text{Profit or Loss on Disposal} = \text{Sales Proceeds} - \text{NBV}$$

### Example 4.9

Suppose that the machinery in Example 4.8 was sold on 1 January 20X2 for one of the following amounts:

1. £48,000
2. £46,000
3. £43,000.

The NBV at the time of the sale is £46,000, so the profit or loss on disposal in each scenario would be:

1. £2,000 profit
2. £nil
3. £3,000 loss.

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### Pause and think

The profit or loss on disposal of fixed assets does not form part of **operating profits** in the P&L of a company. As operating profits are the profits made by the business in the course of business, why do you think these items are excluded?

Large (material) values of profits and losses on disposal should also be disclosed separately from other gains or expenses in a company's P&L. Why do you think this is?

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## Summary

This chapter has covered a great deal of material. You should make sure you are familiar with all the concepts and calculations contained in this chapter and that you are able to explain them if asked. In particular, you should practise dealing with accruals and prepayments, depreciation, disposals of fixed assets, and adjustments for bad and doubtful debts.

We need to be able to account for these items when preparing basic financial statements in the next chapter of this subject guide, and they will also feature in the examination.

If you find the double-entry for any of these items confusing, remember that the important thing is to be able to calculate the figures which should appear in the financial statements at the end of the day. It does not matter how this is done and it can be done without using double-entry.

We have also seen that applying the accruals and matching concepts means that choices must be made between, for example, different methods of calculating depreciation. There are also different methods of valuing stock. Choices of different methods have obvious impacts on the figures that appear in the financial statements, so methods may be chosen purely on this basis.

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## Examination questions

You will usually be asked to prepare at least one set of basic financial statements in the examination, from information provided in the question. This may involve dealing with any or all of the items discussed in this chapter. We will see how best to approach these questions in the next chapter of this subject guide so I have not provided any financial statement preparation questions here.

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**Notes**